

FIG. 3

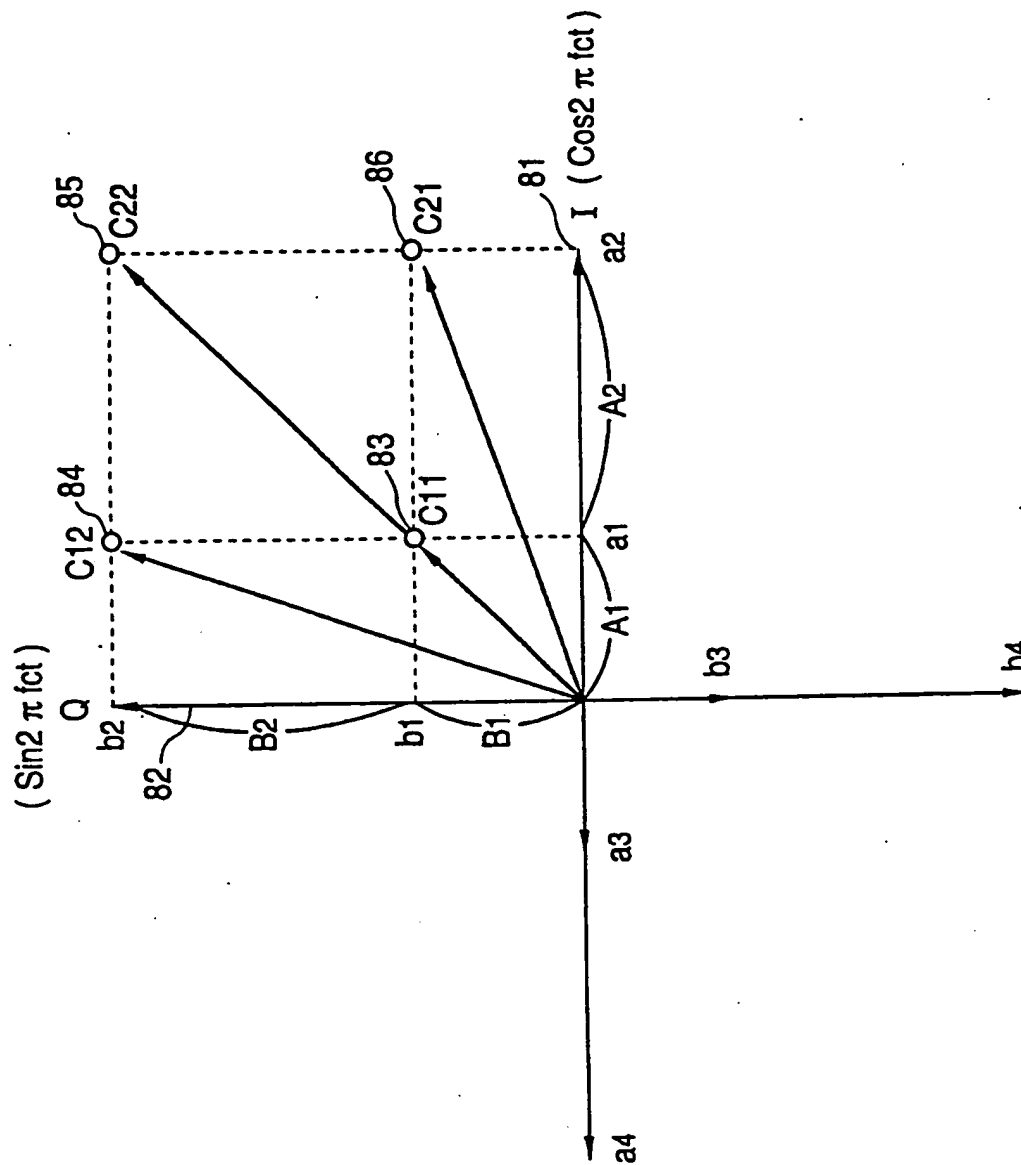


FIG. 4

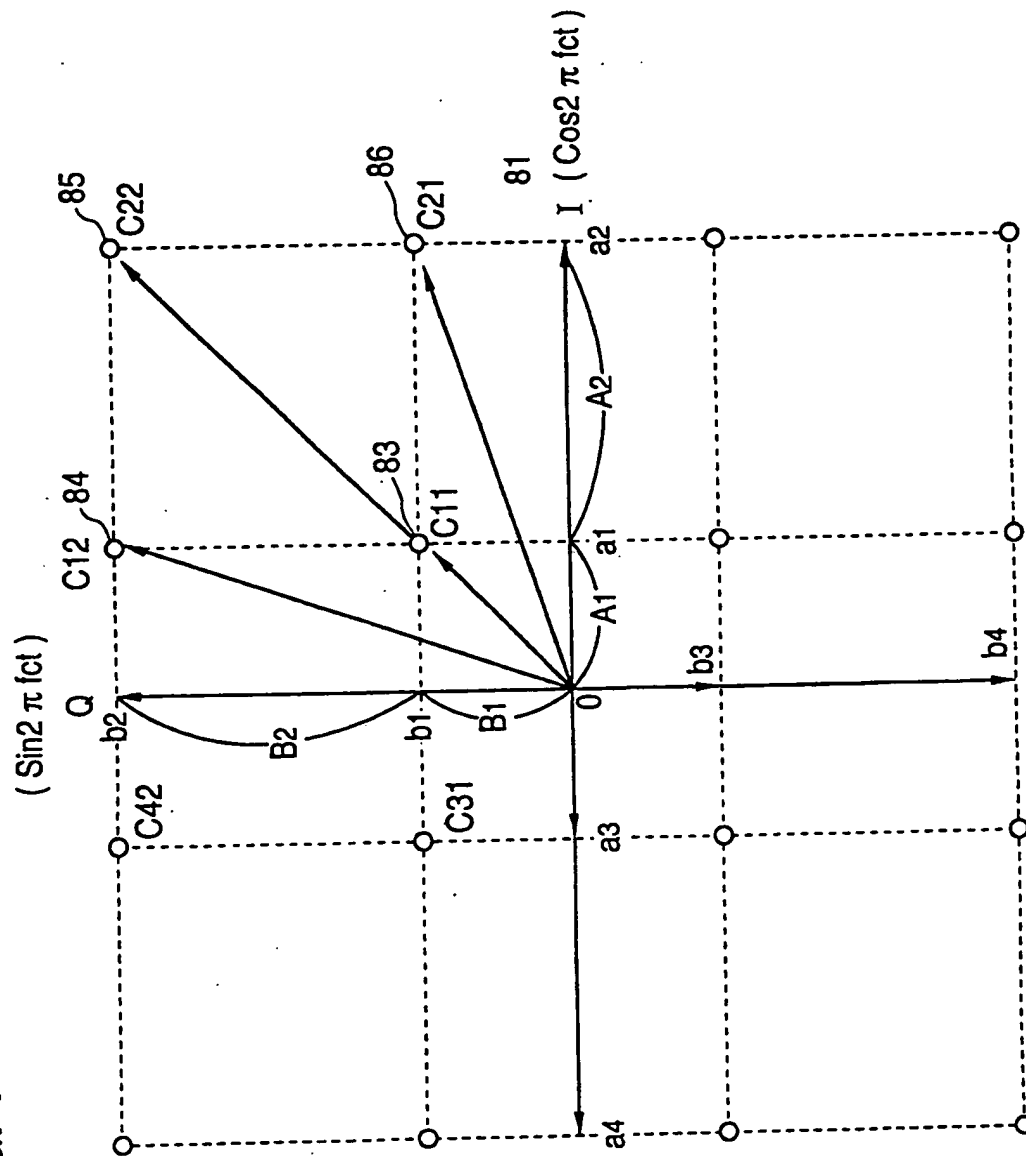


FIG. 5

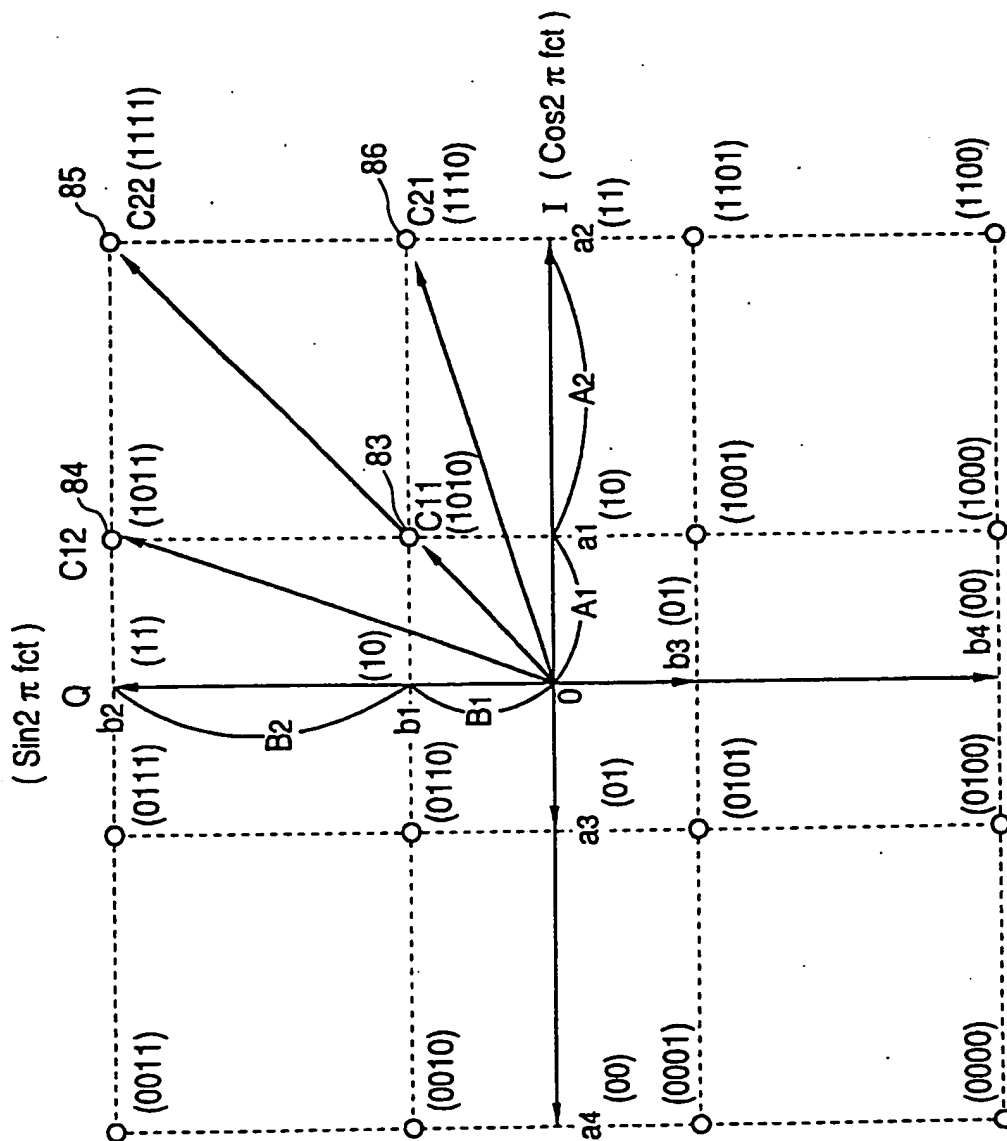


FIG. 6

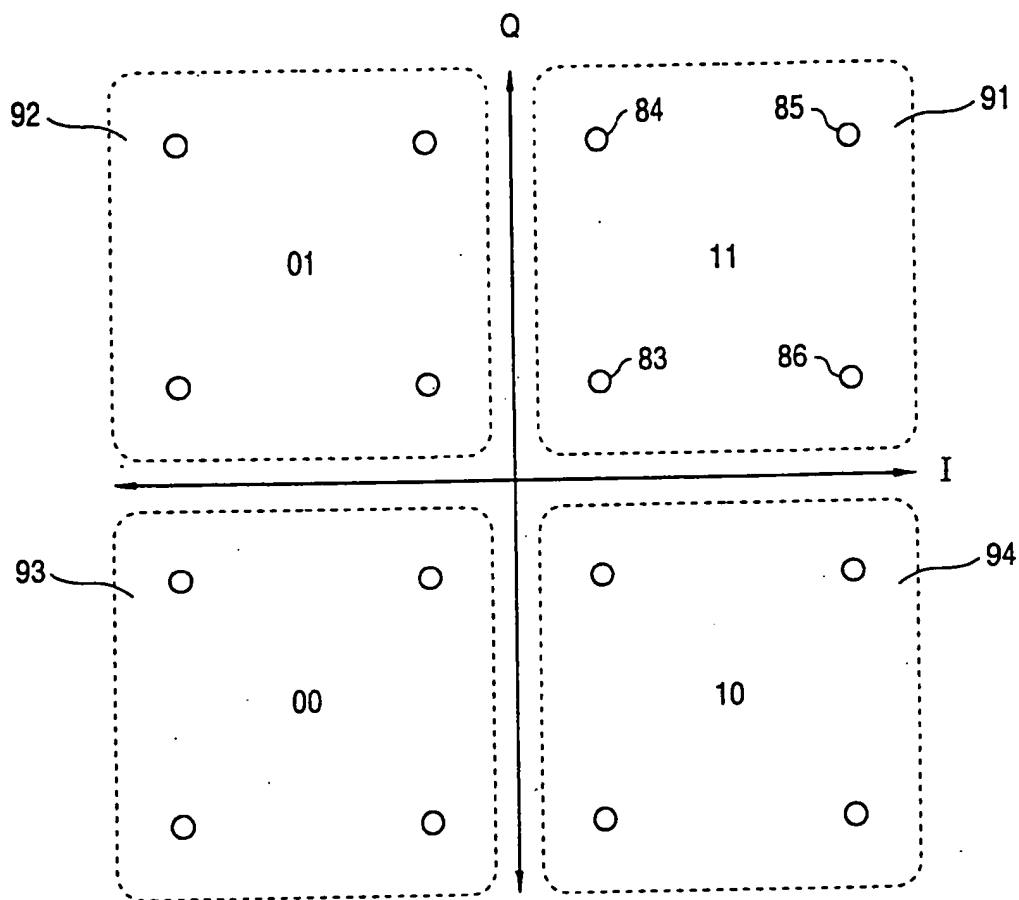


FIG. 7

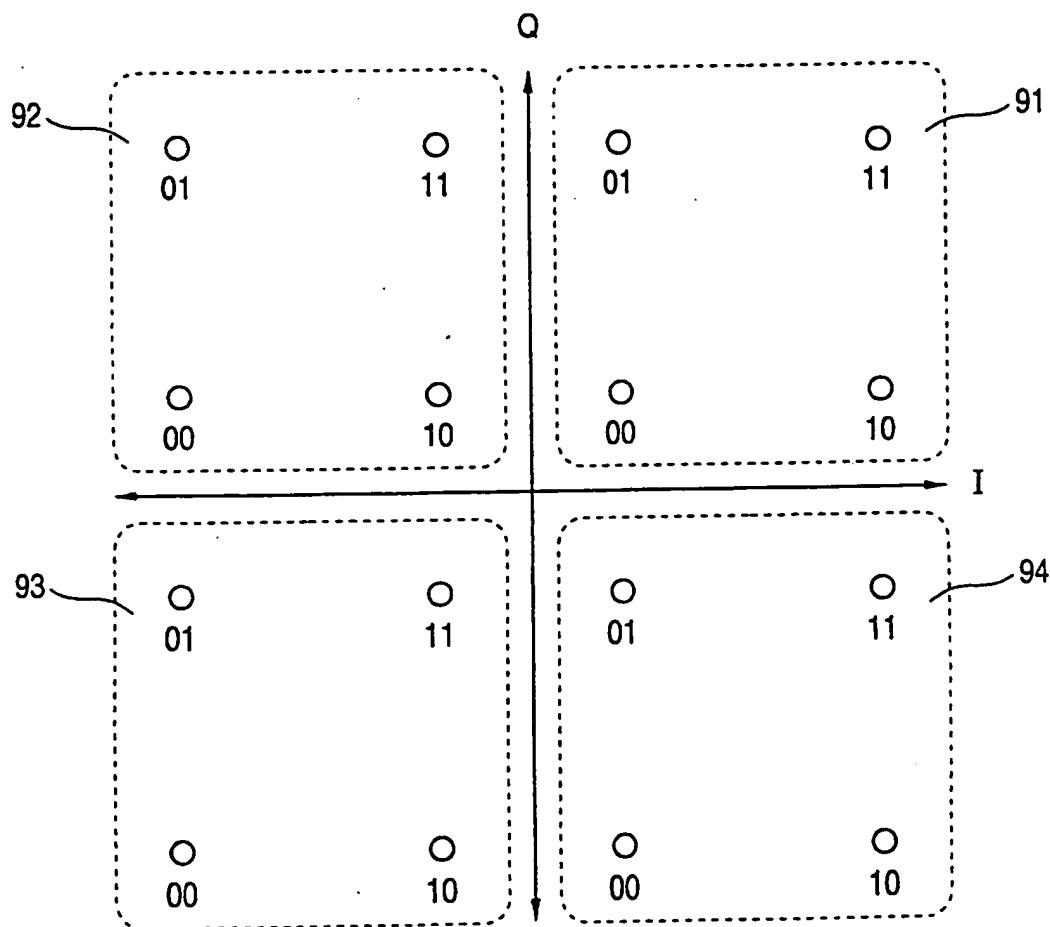


FIG. 8

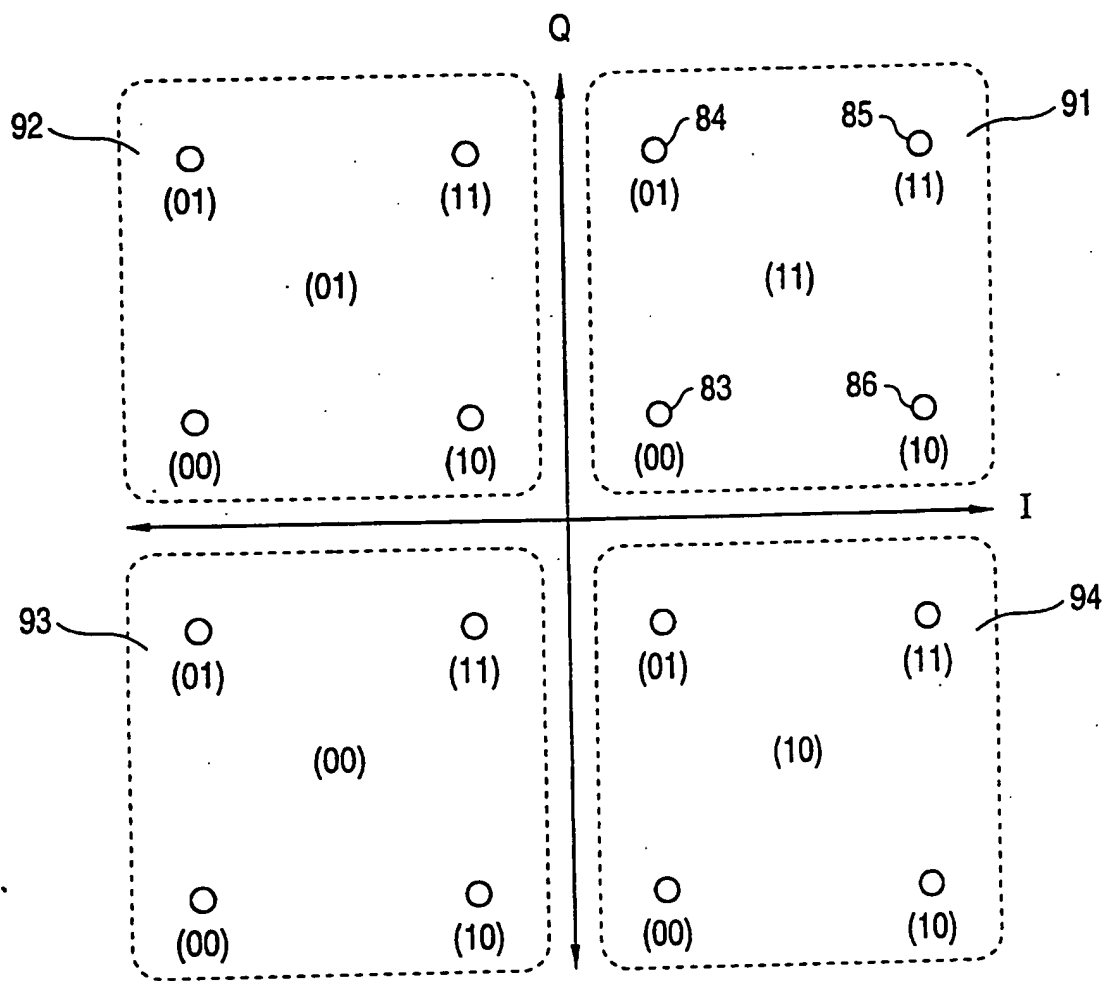


FIG. 9

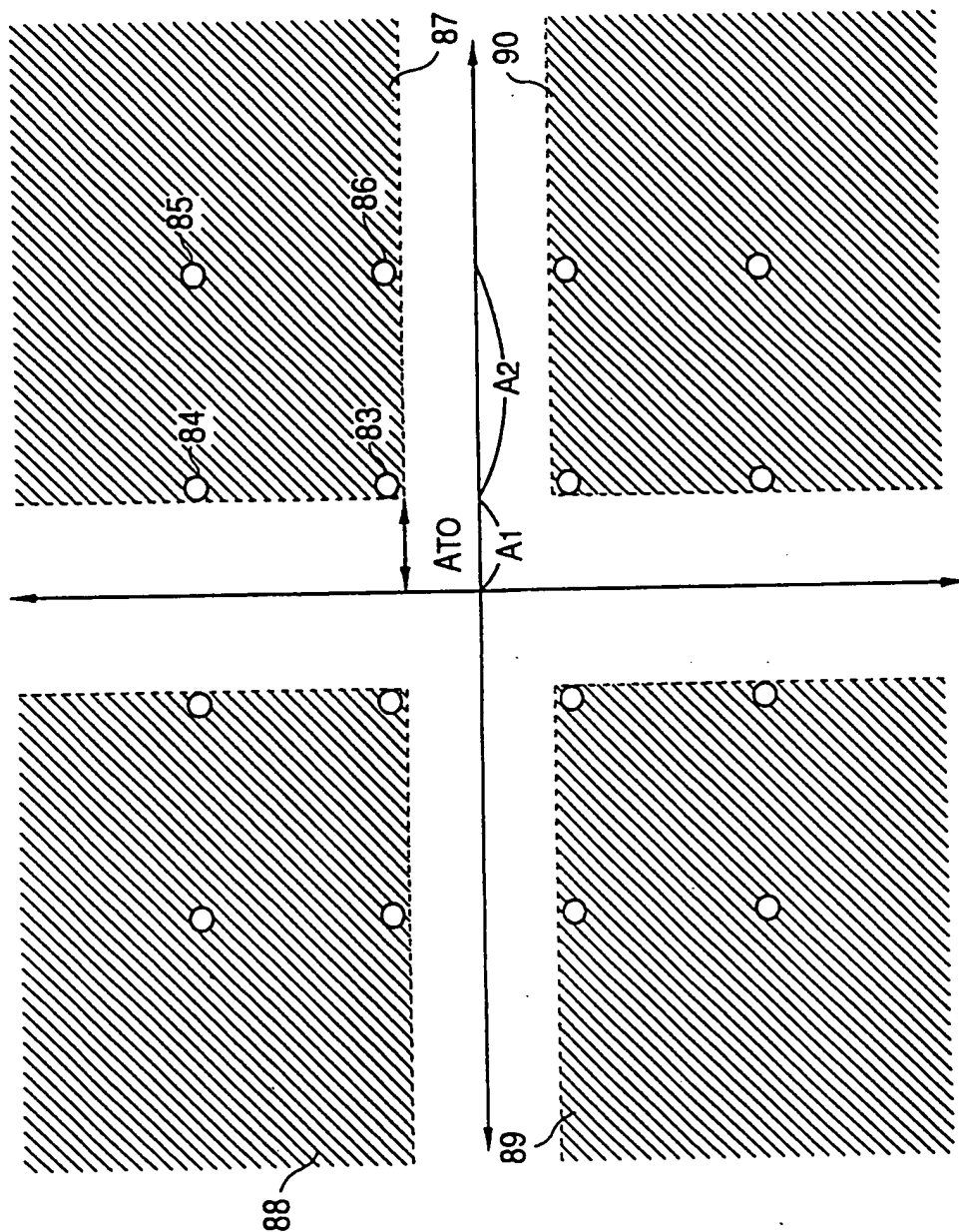


FIG. 10

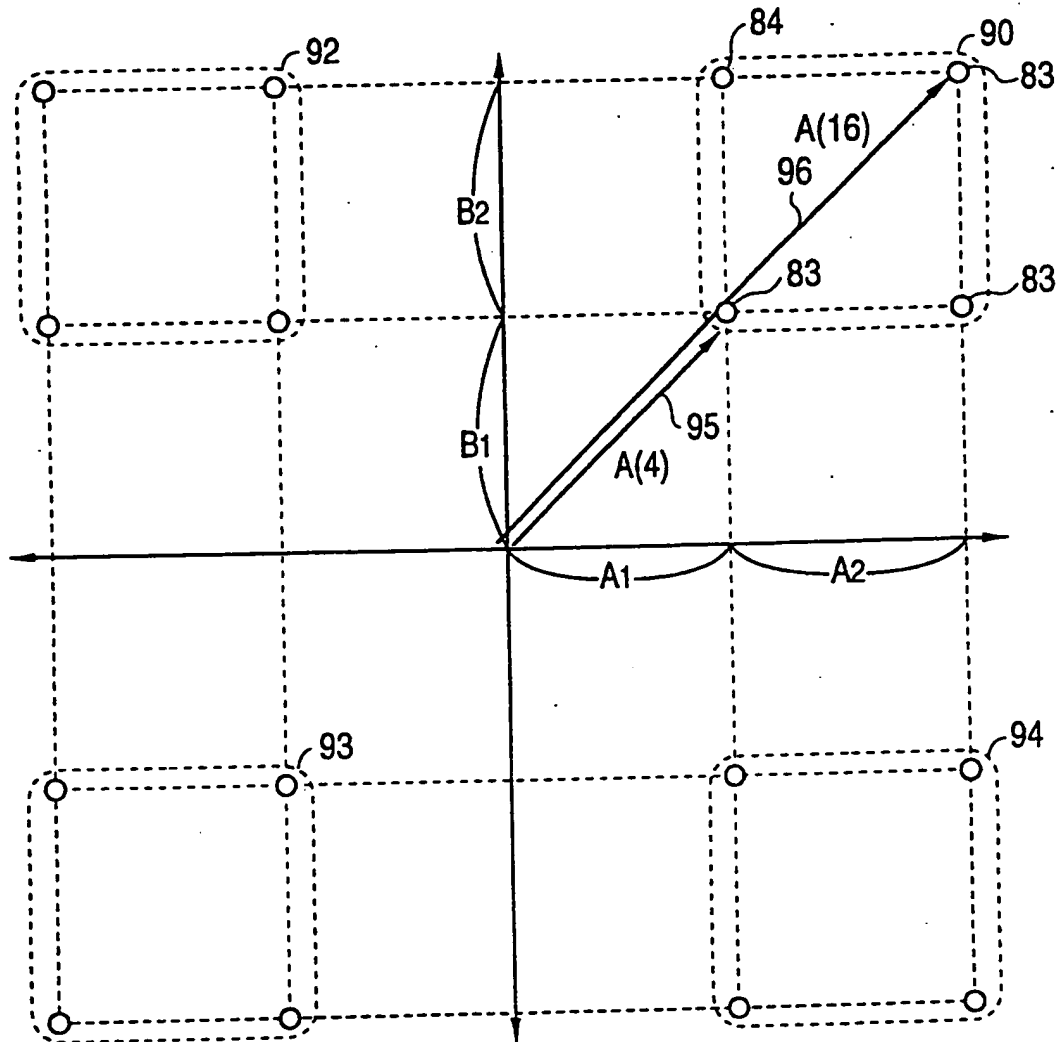


FIG. 11

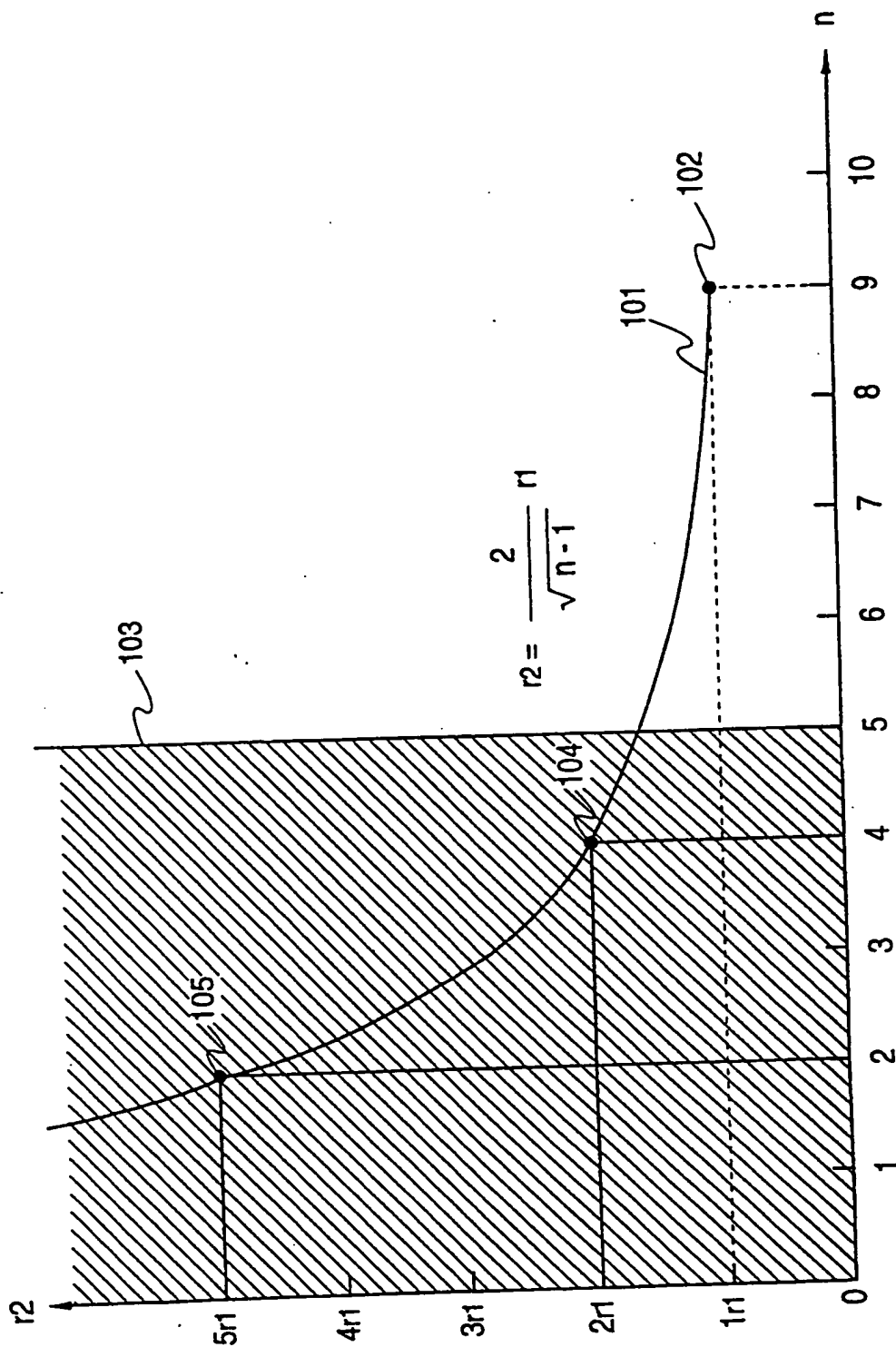


FIG. 12

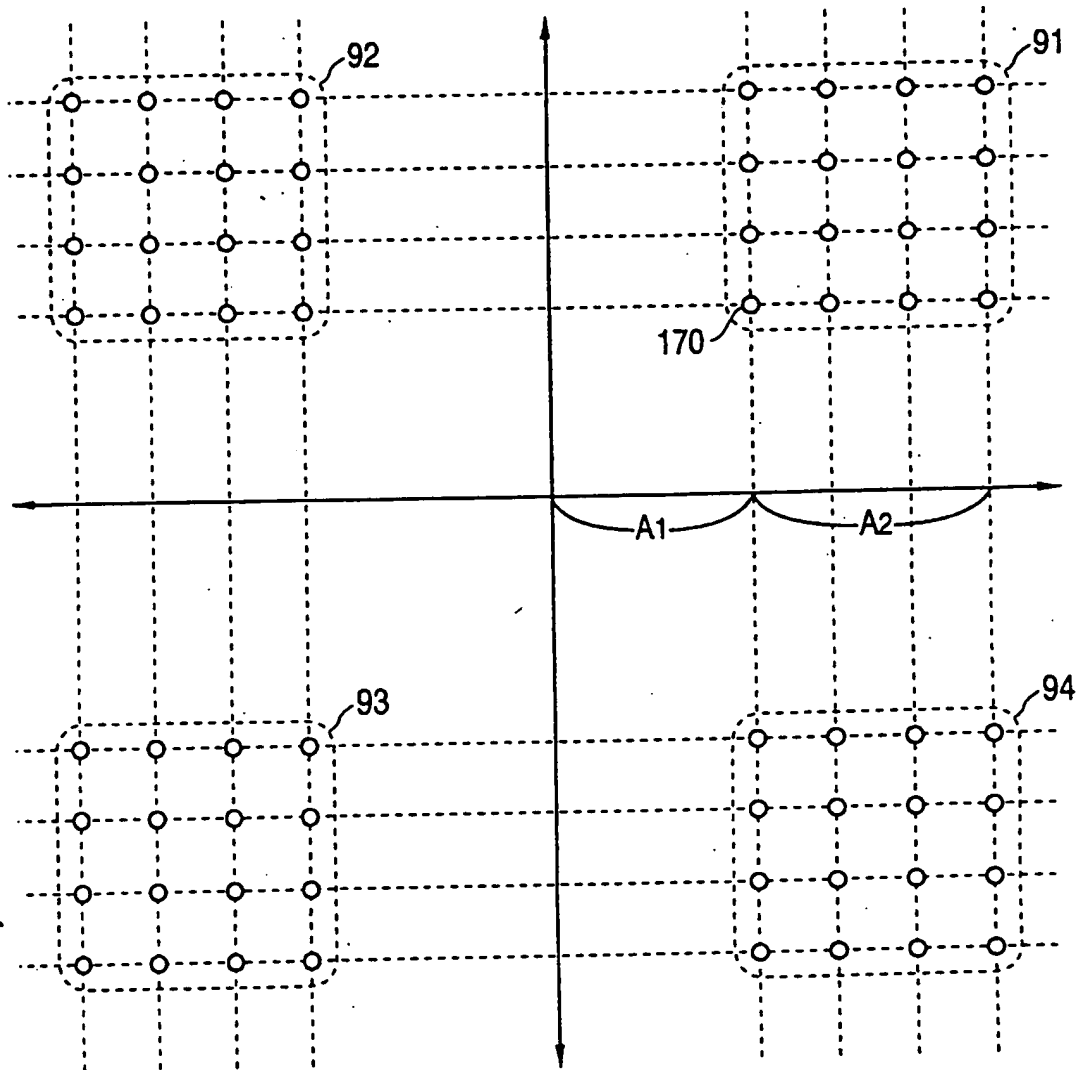


FIG. 13

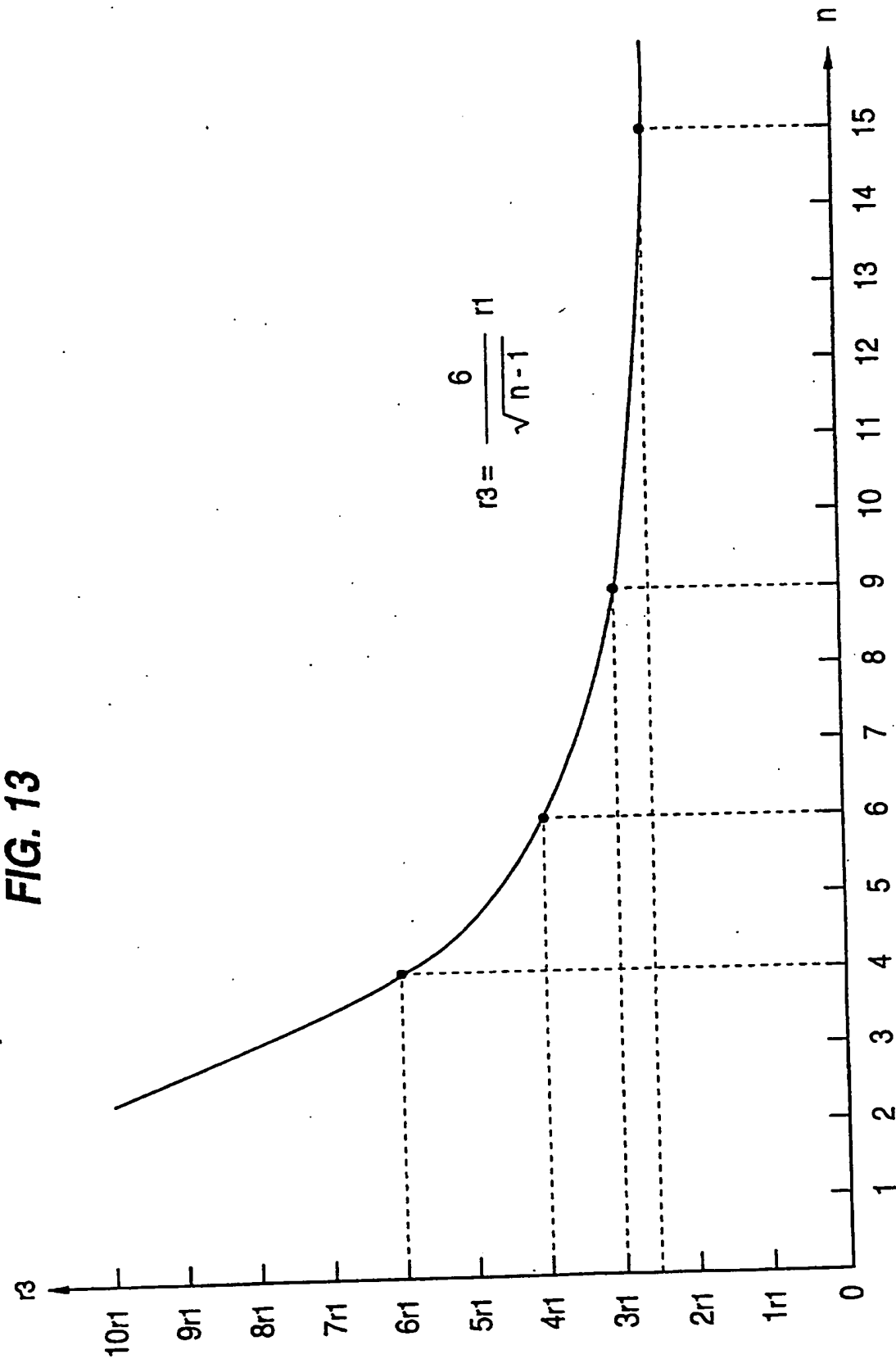


FIG. 14

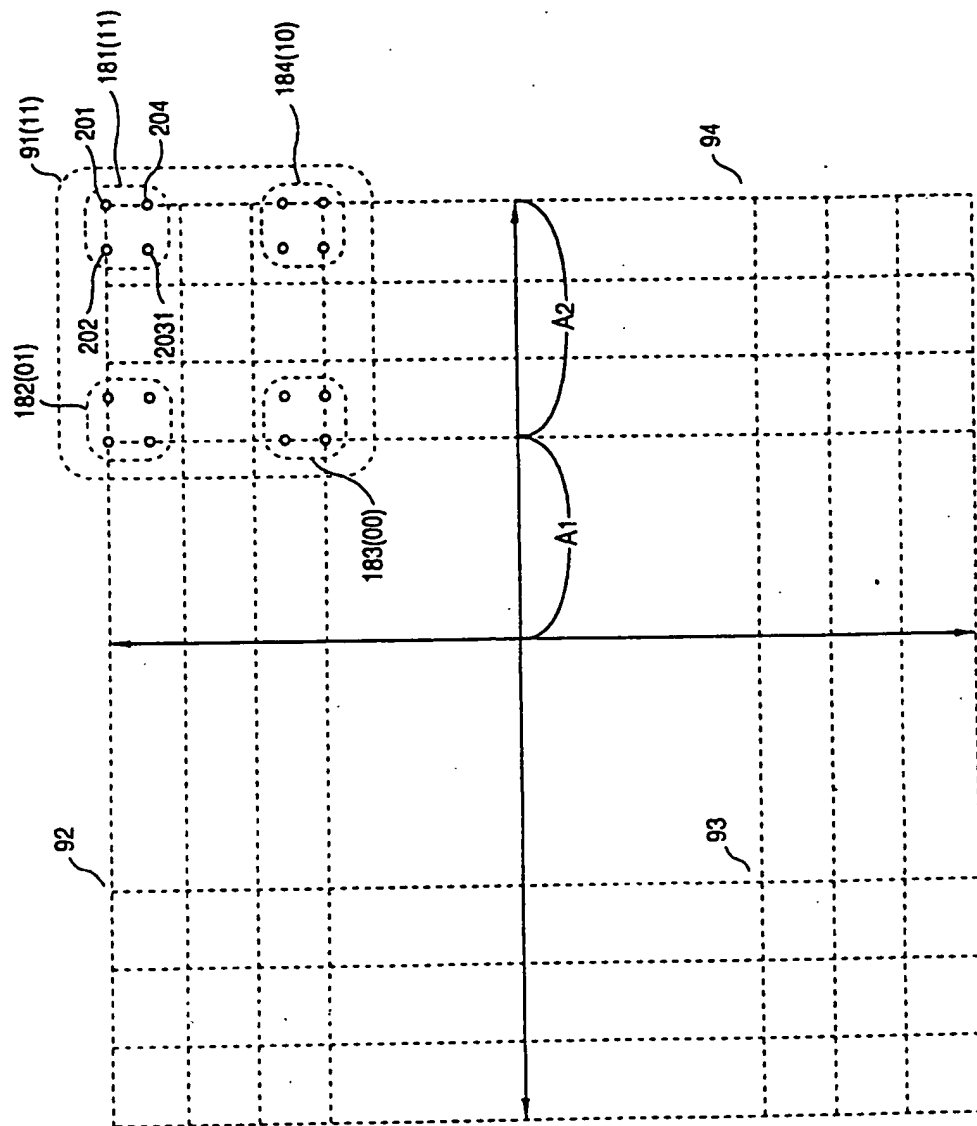


FIG. 15

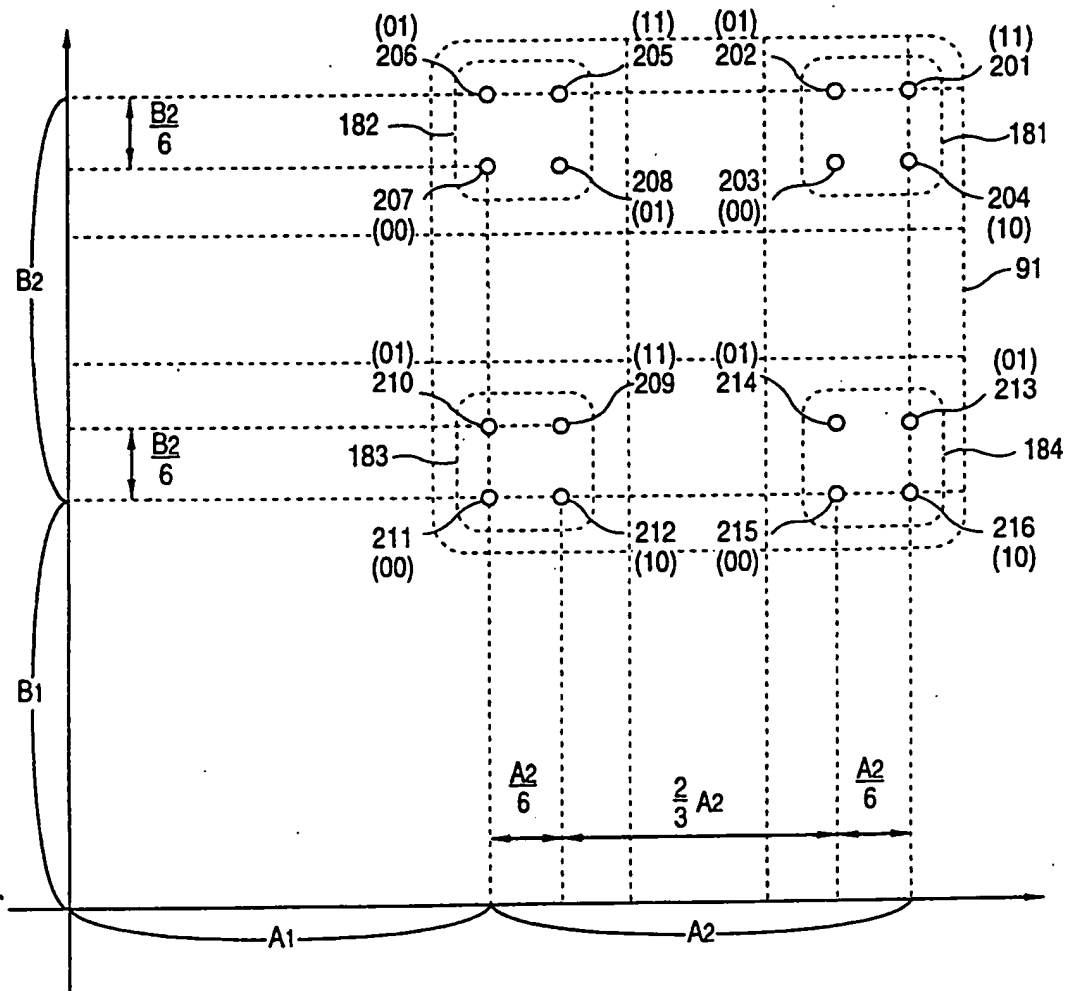


FIG. 16

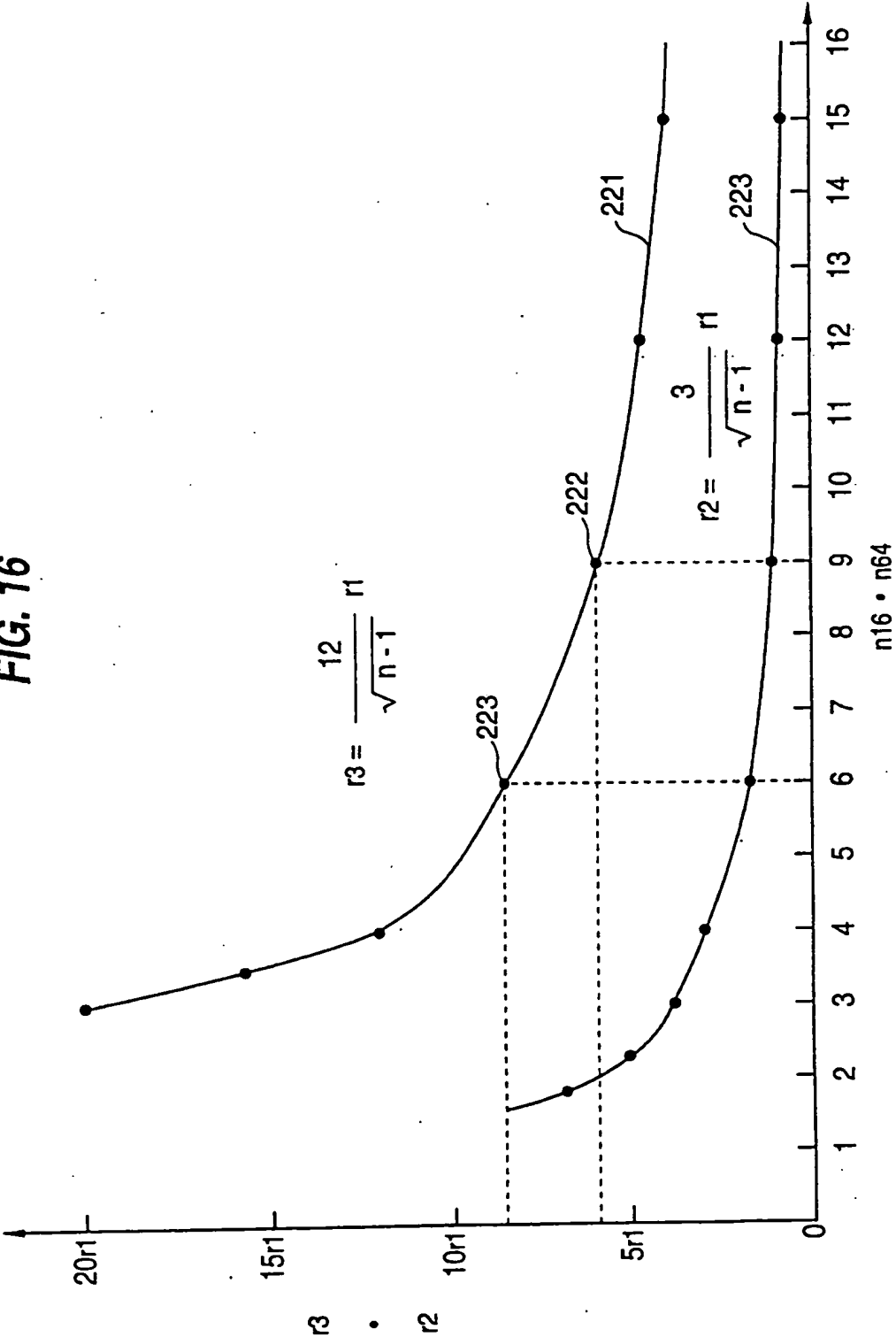


FIG. 17

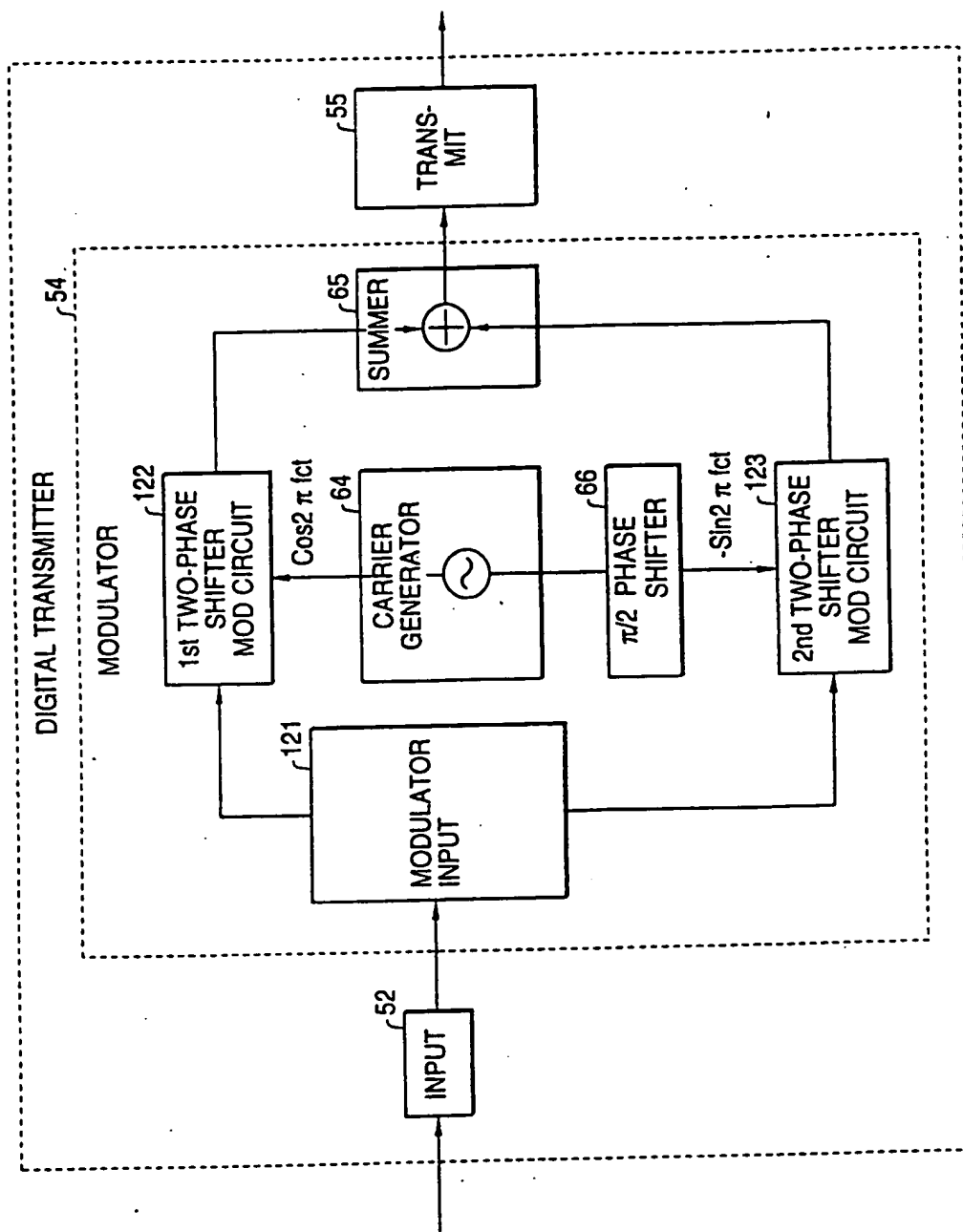


FIG. 18

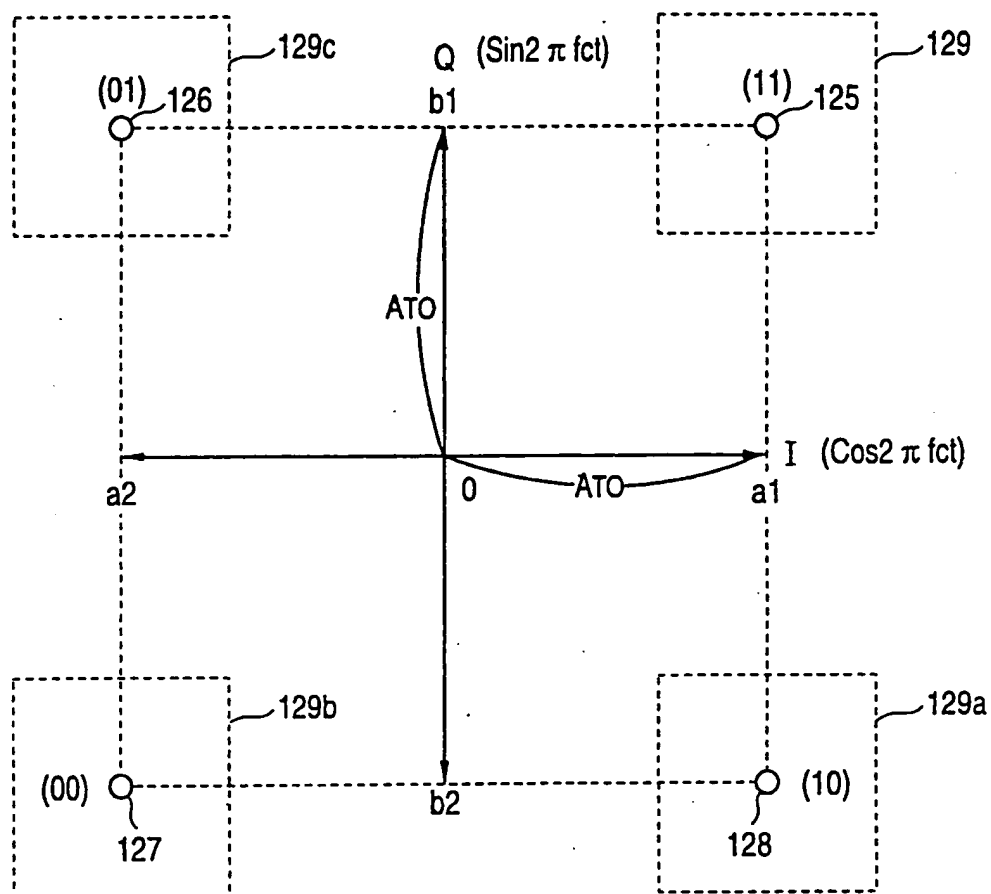


FIG. 19

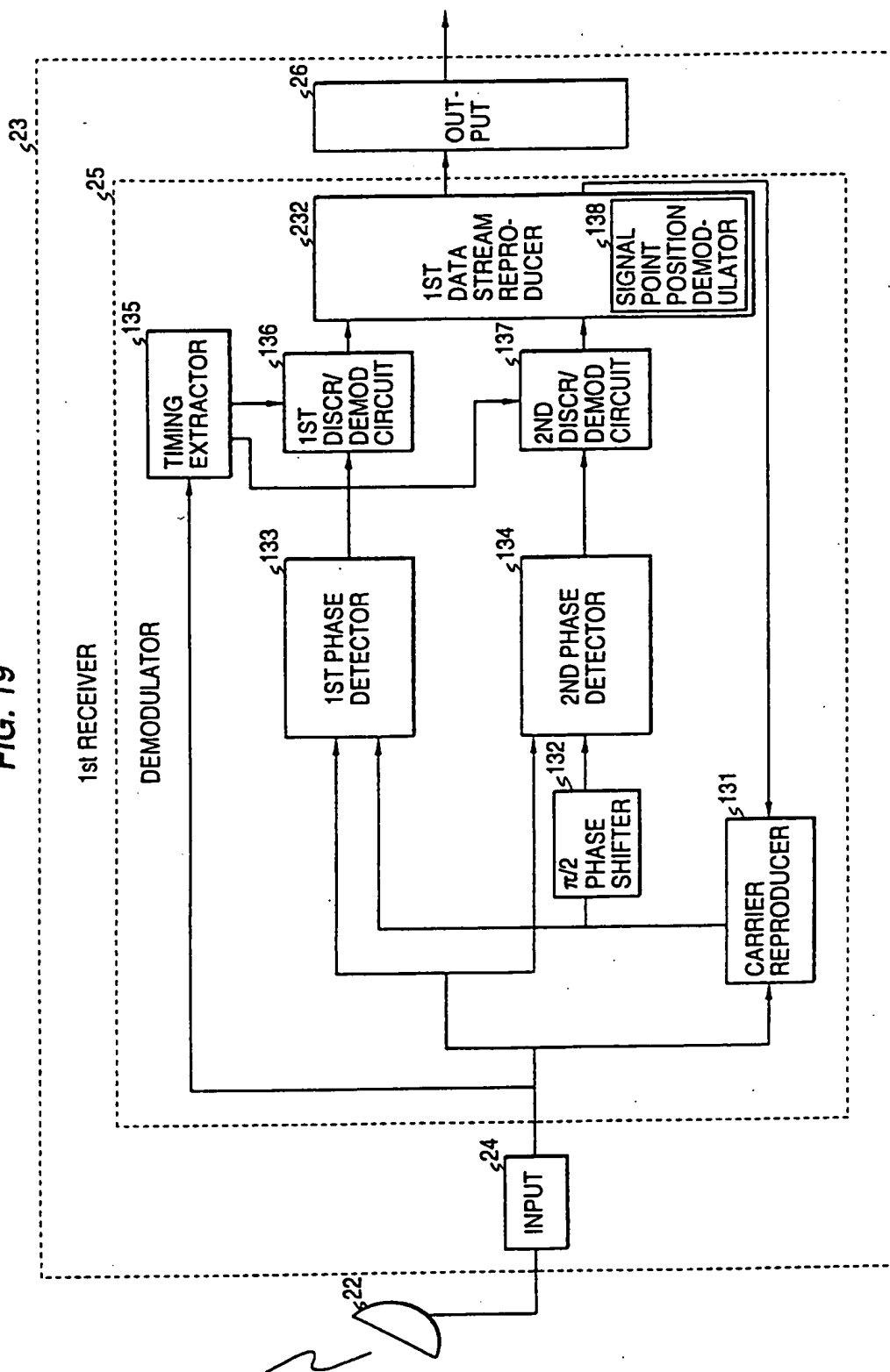


FIG. 20

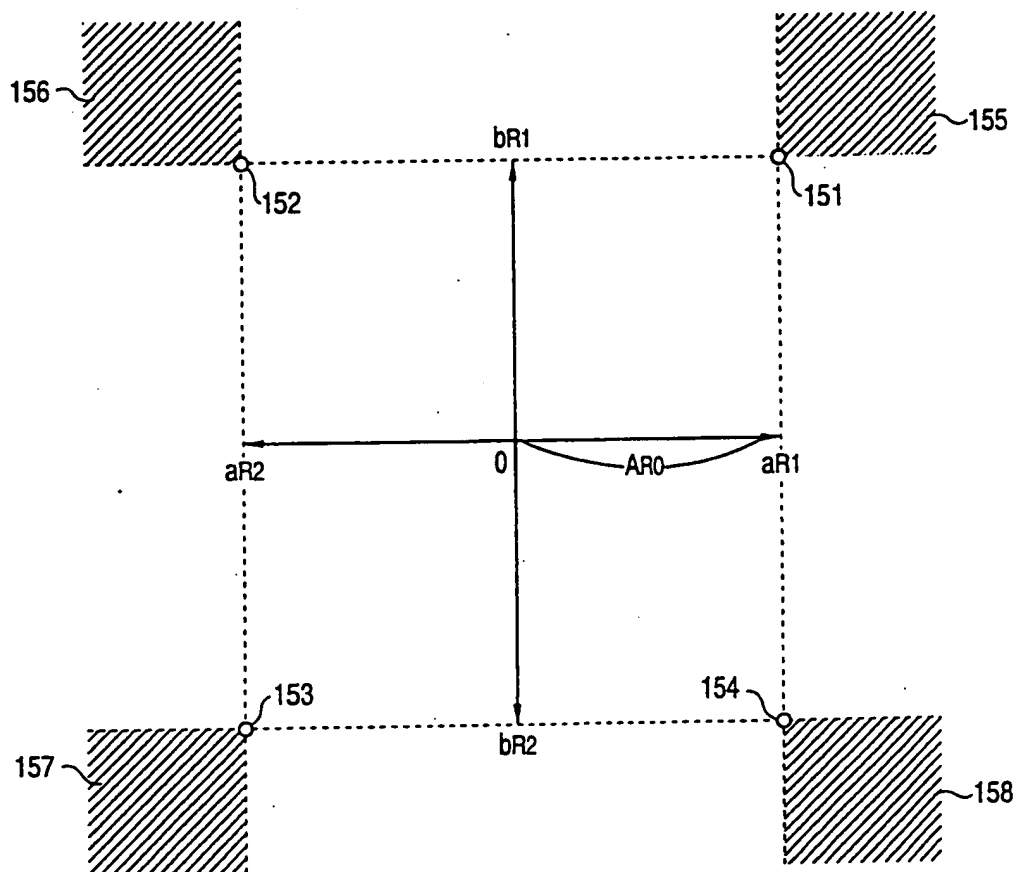


FIG. 21

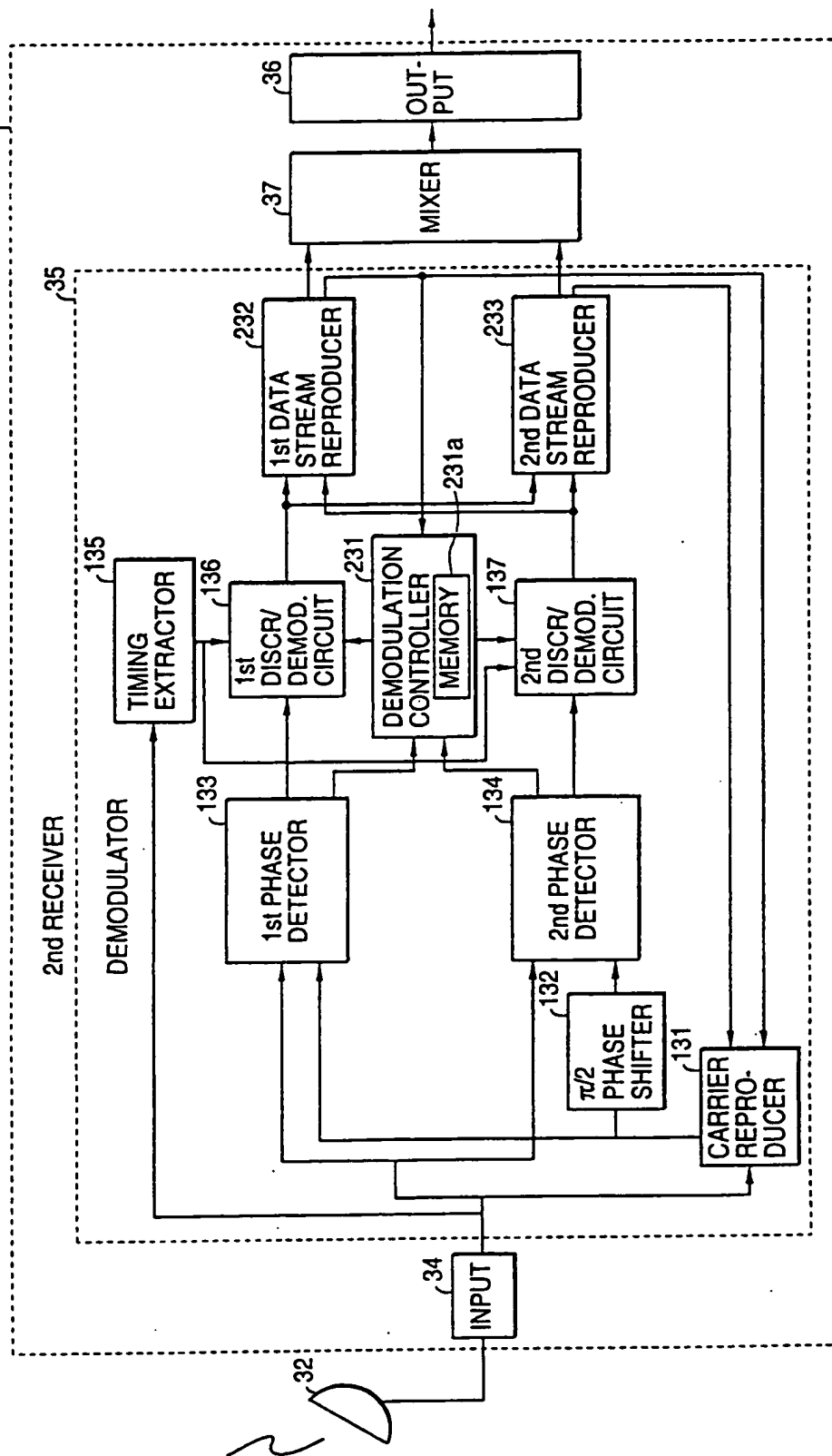
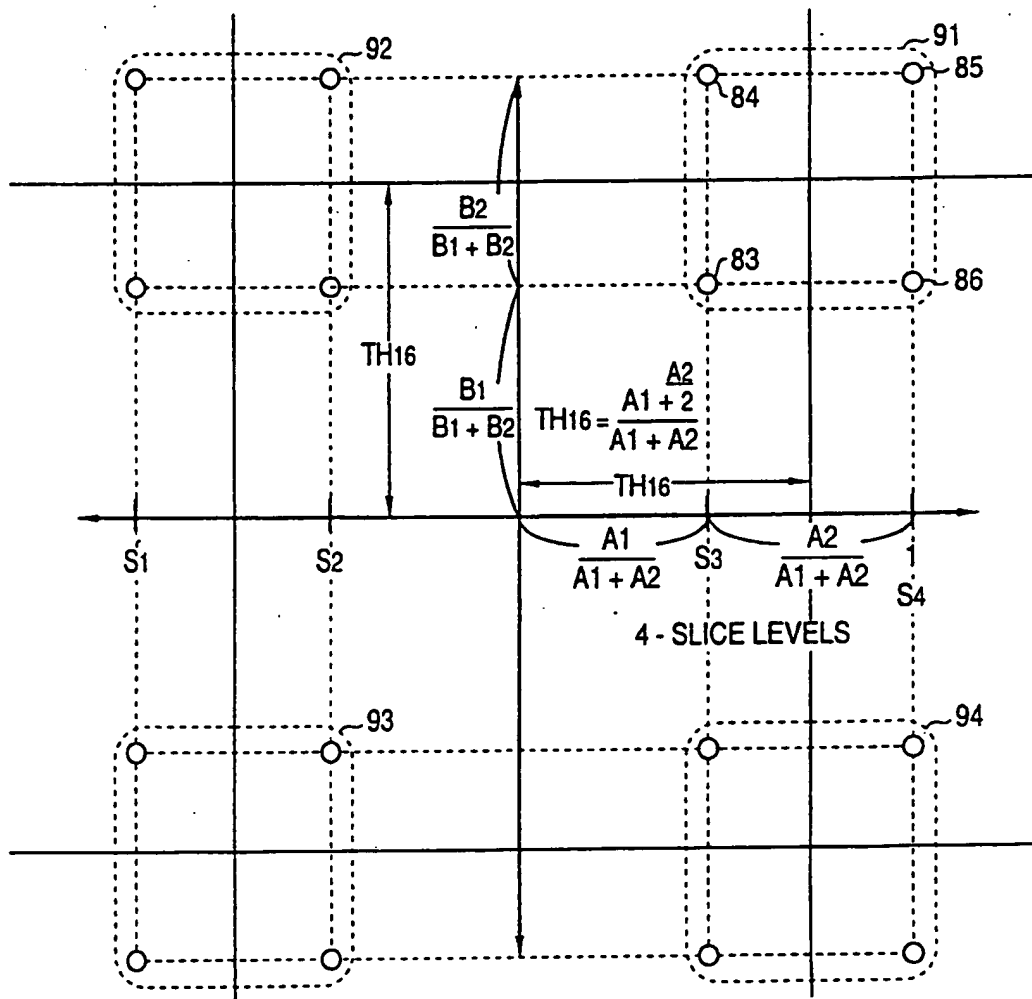


FIG. 22



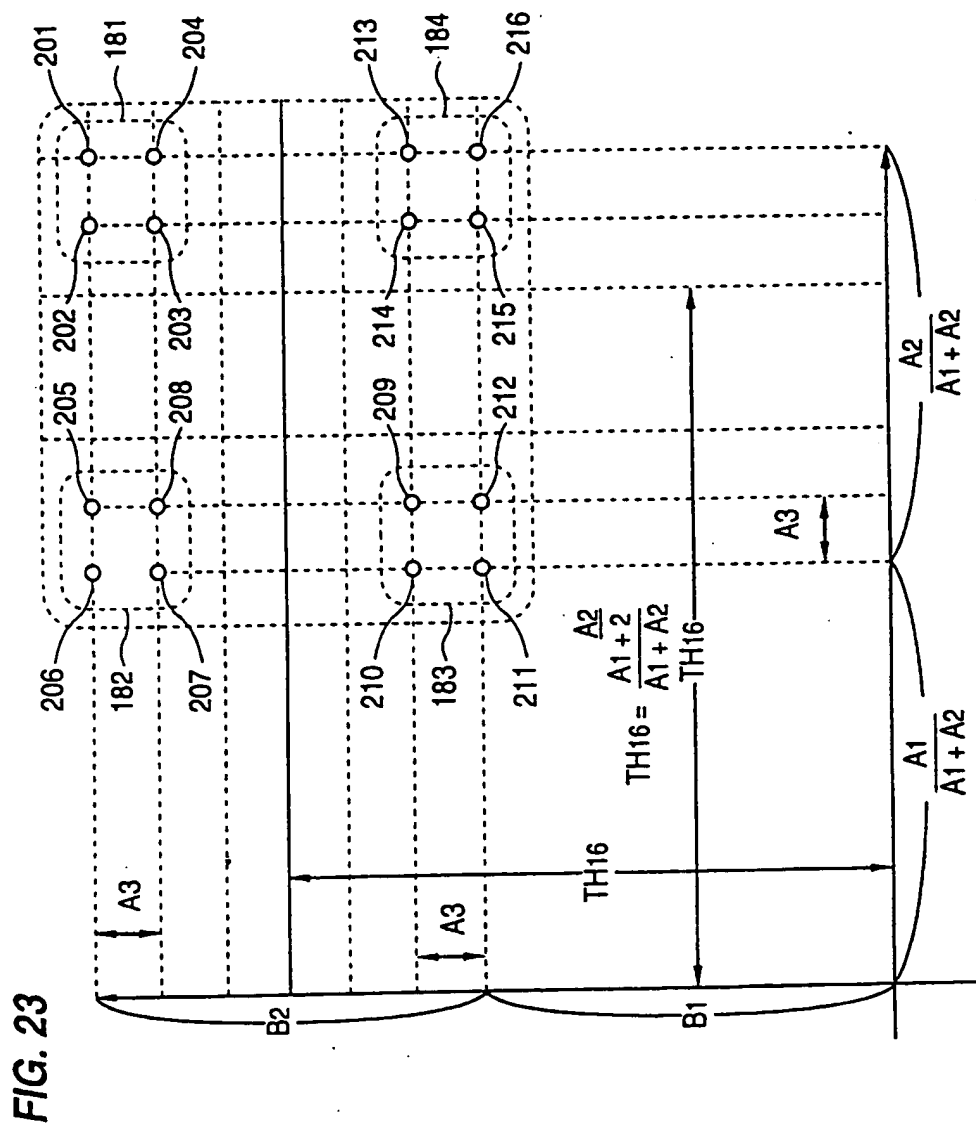


FIG. 24

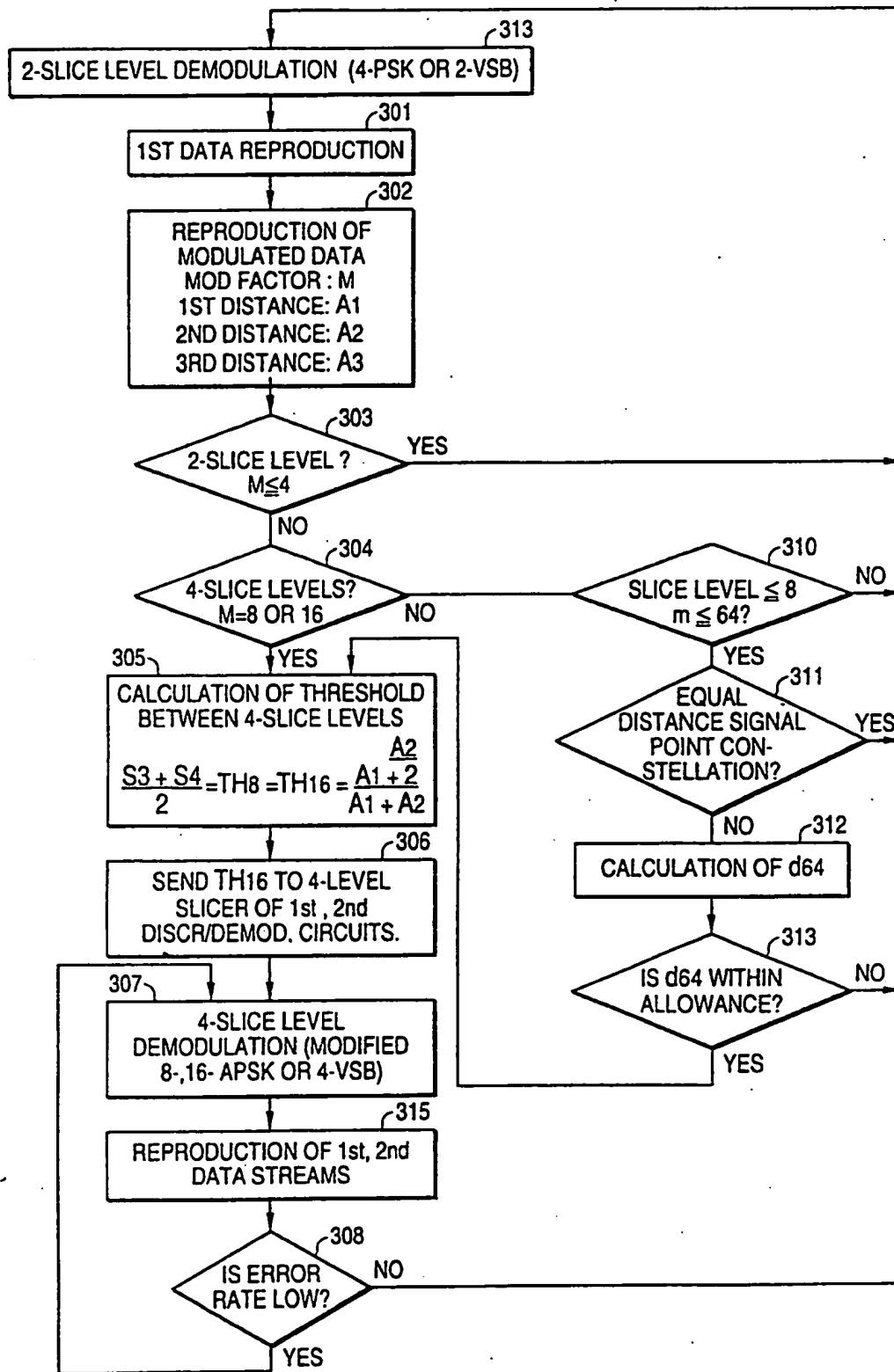


FIG. 25(a)

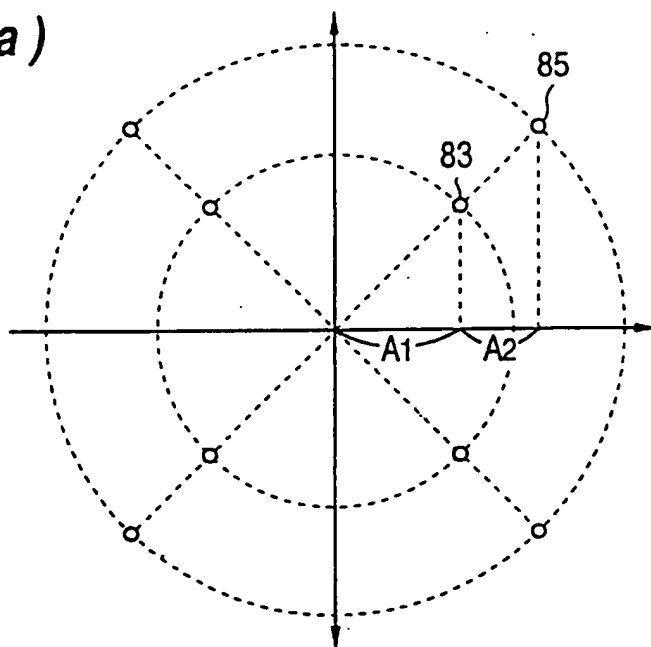


FIG. 25(b)

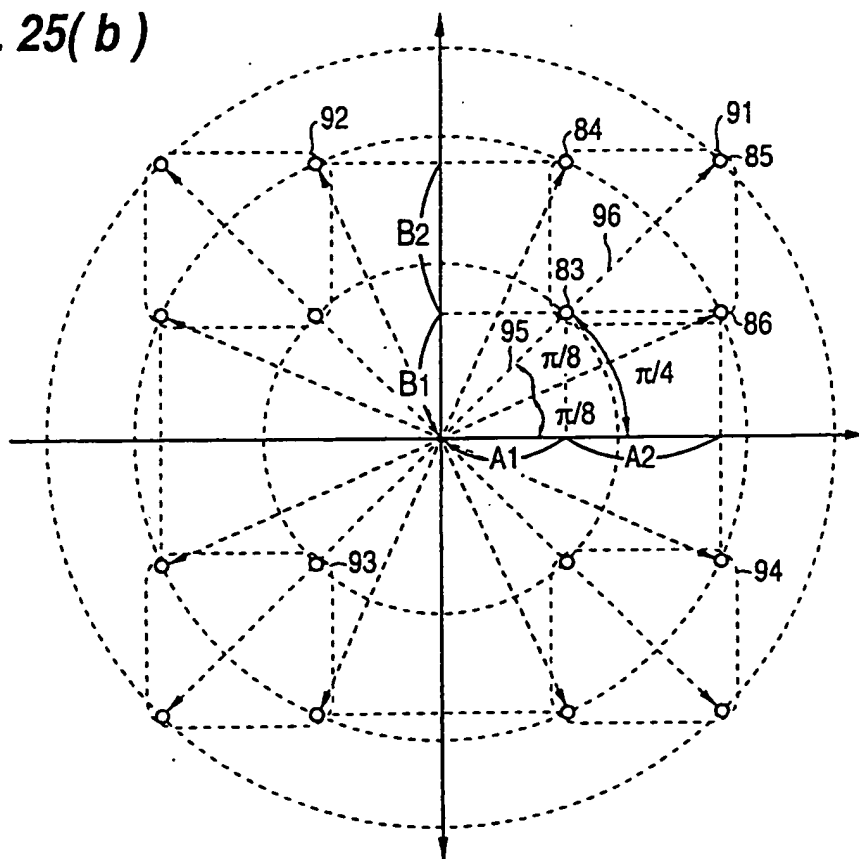
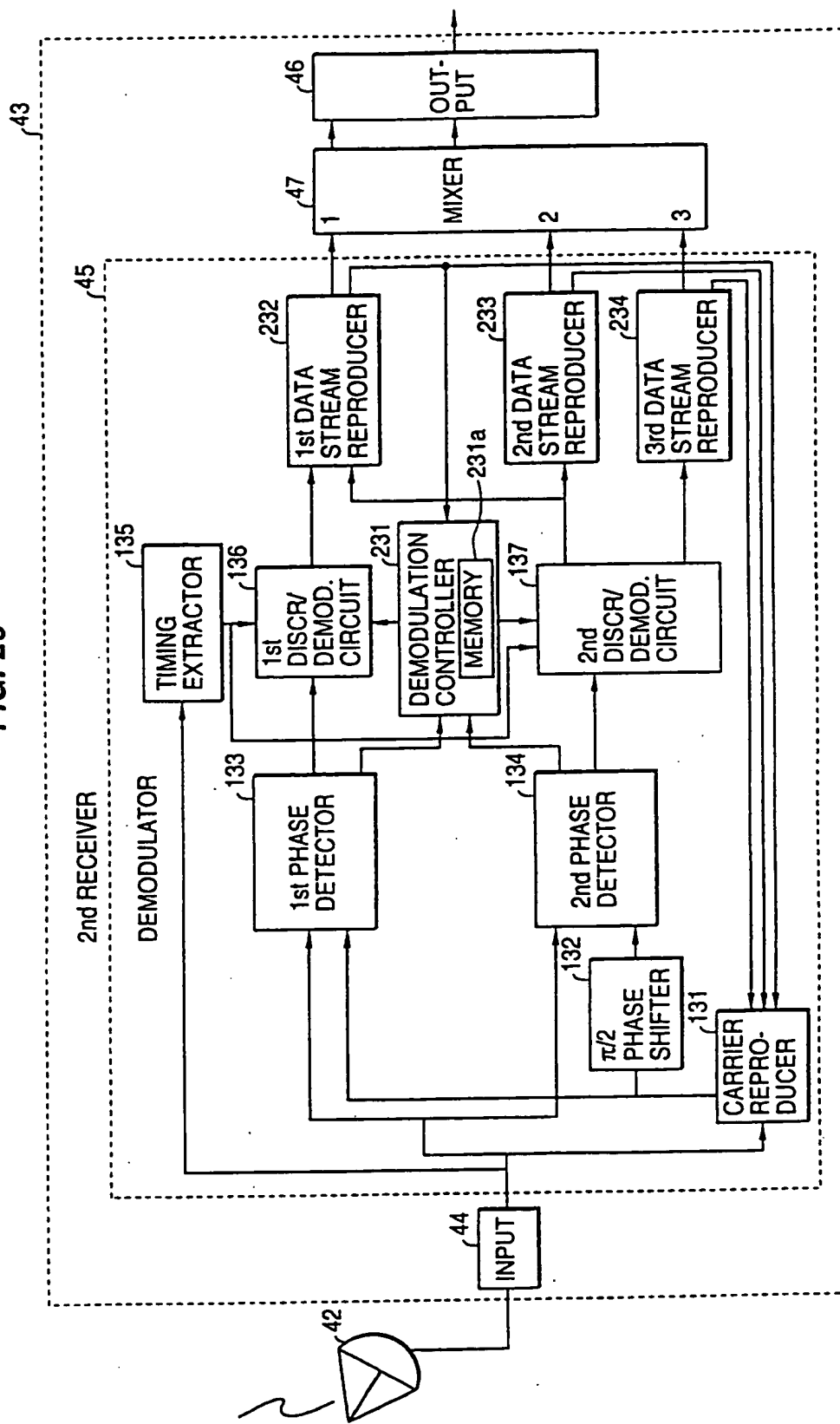


FIG. 26



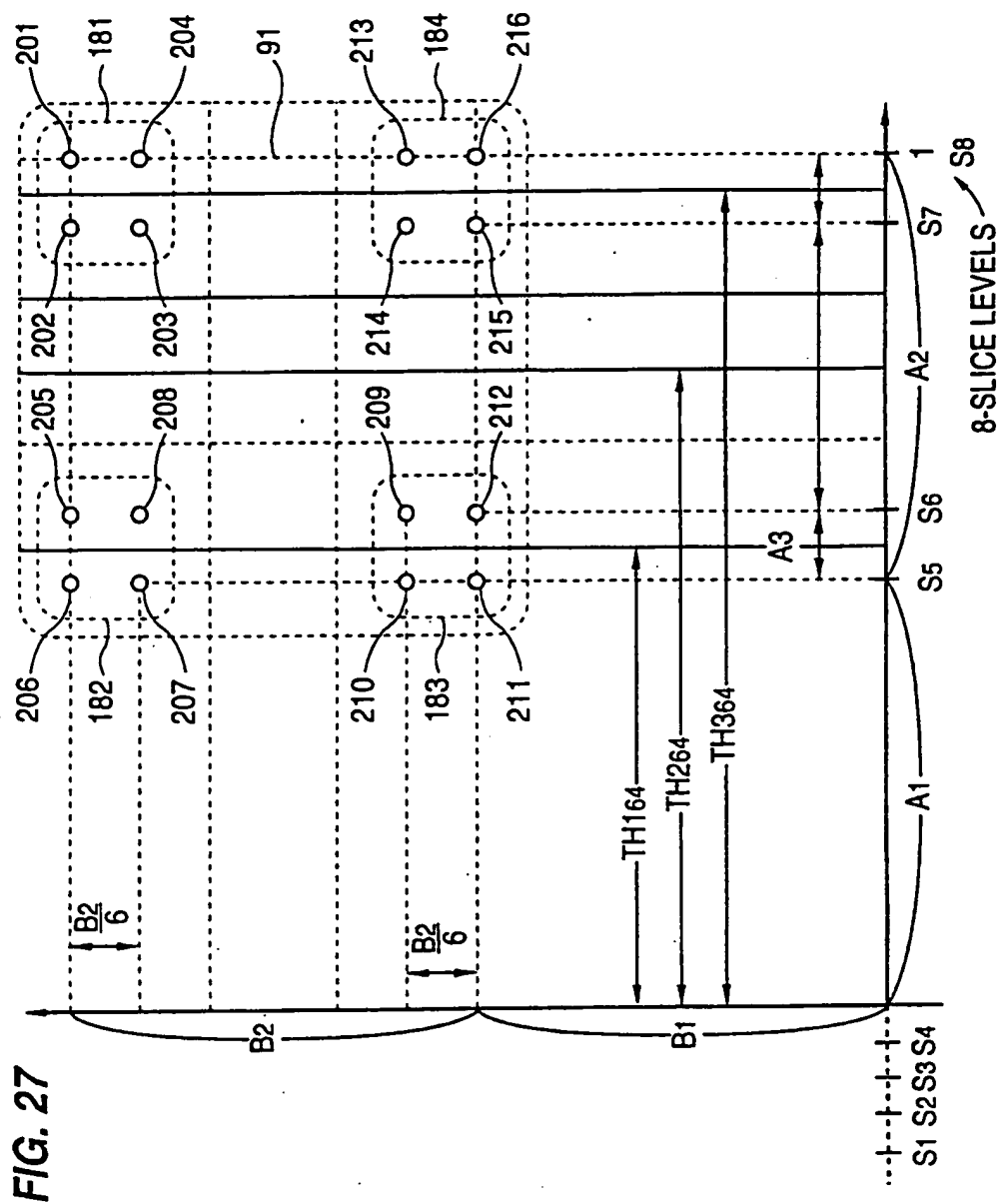


FIG. 28

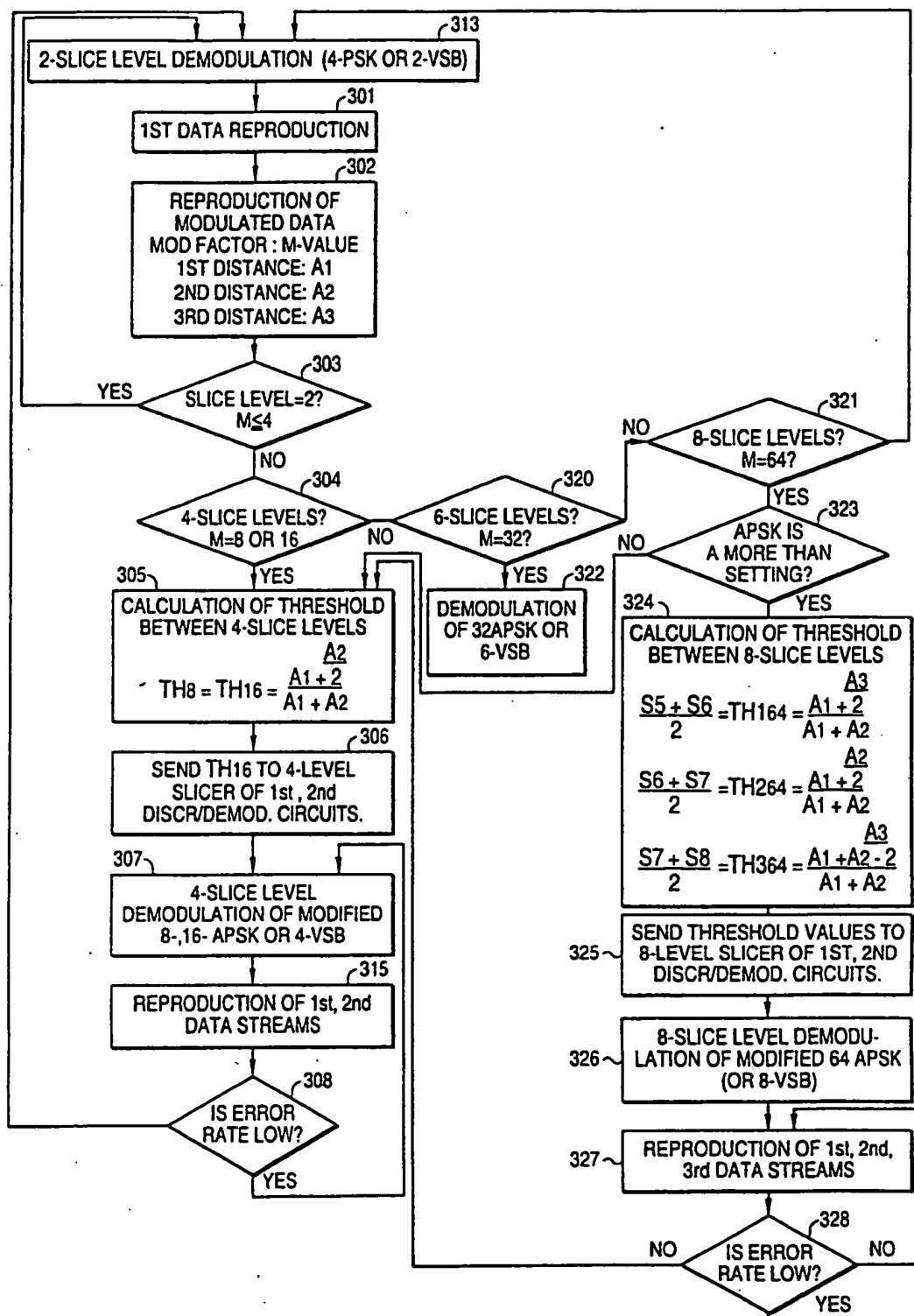


FIG. 29

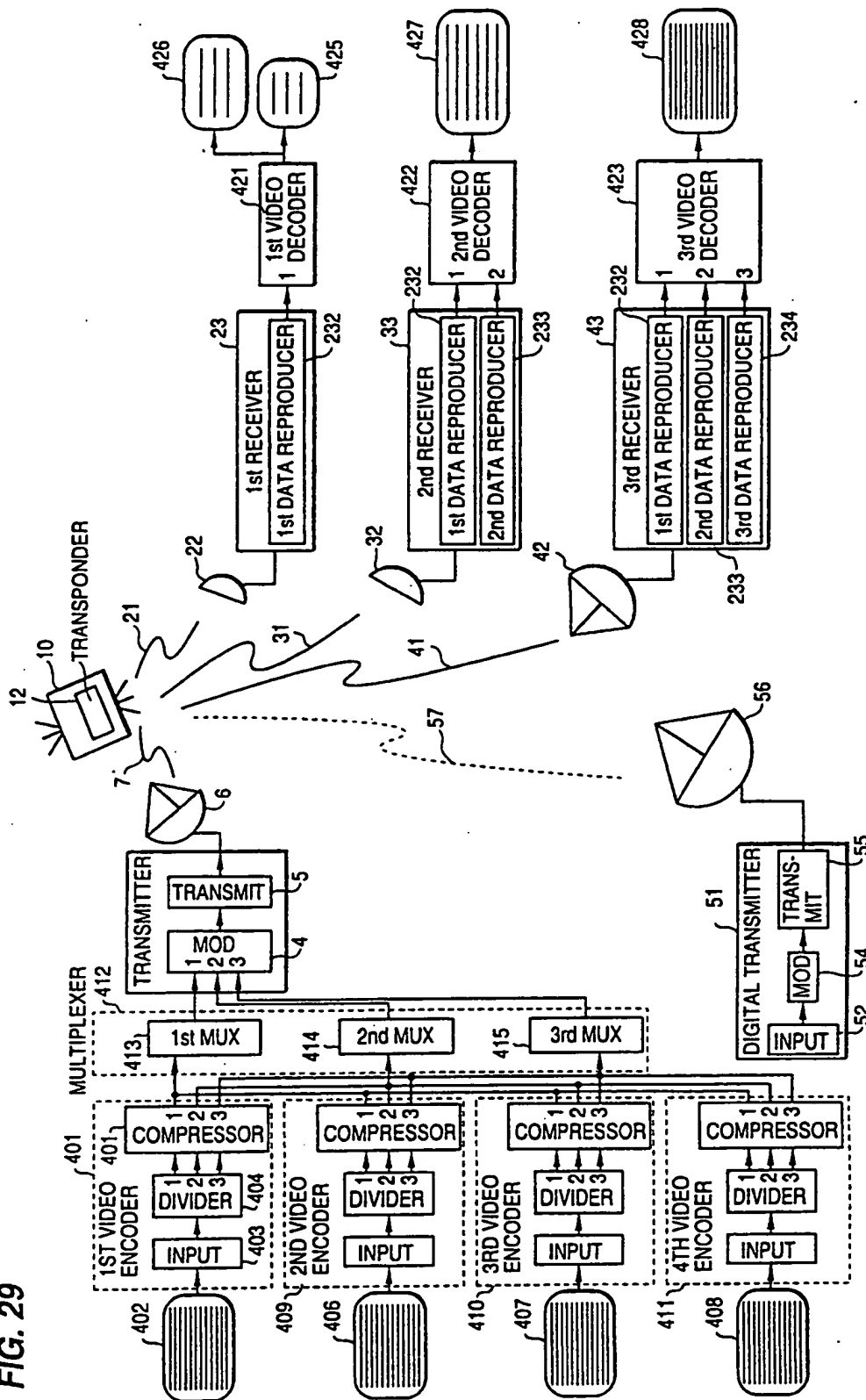
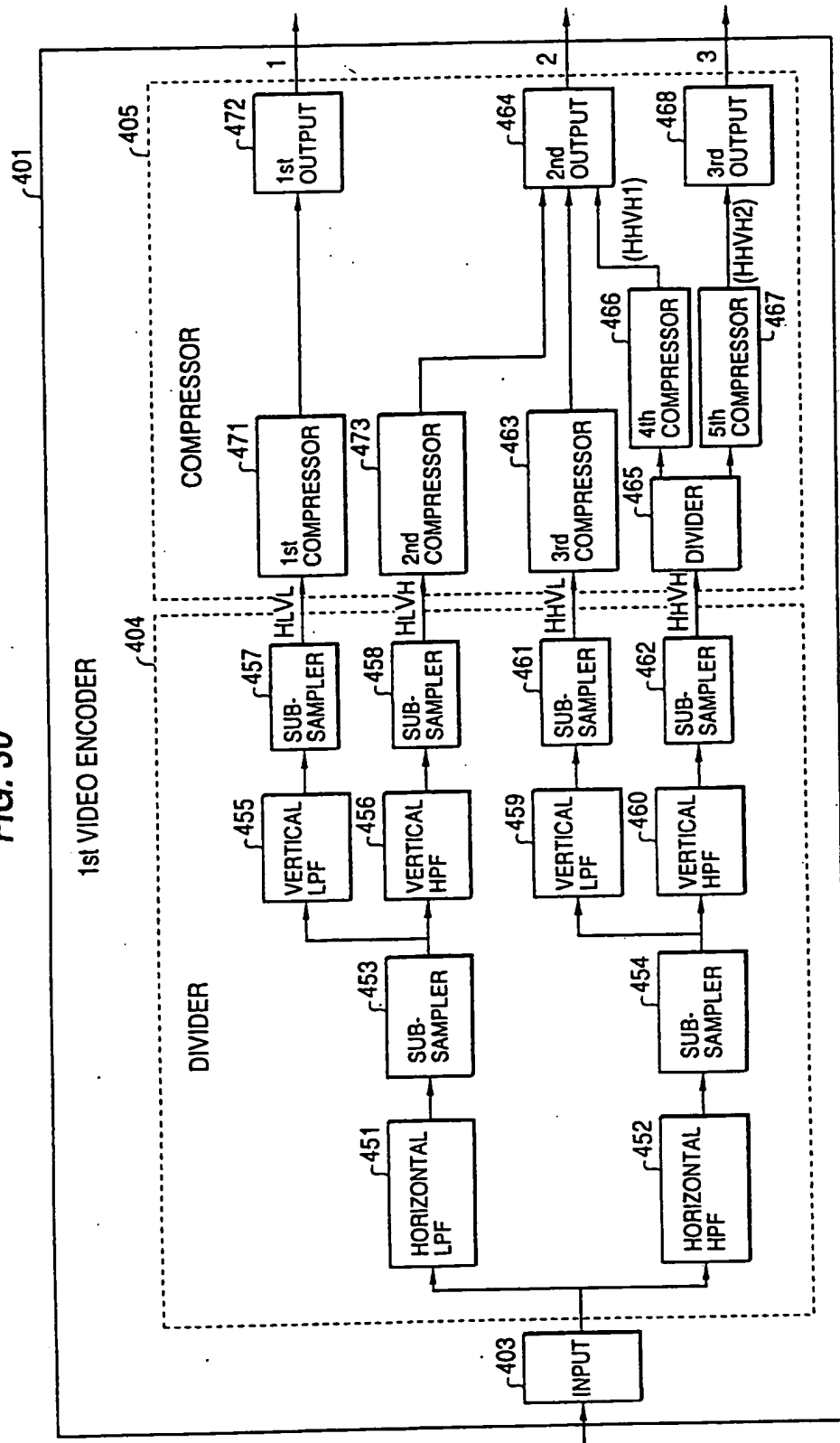


FIG. 30



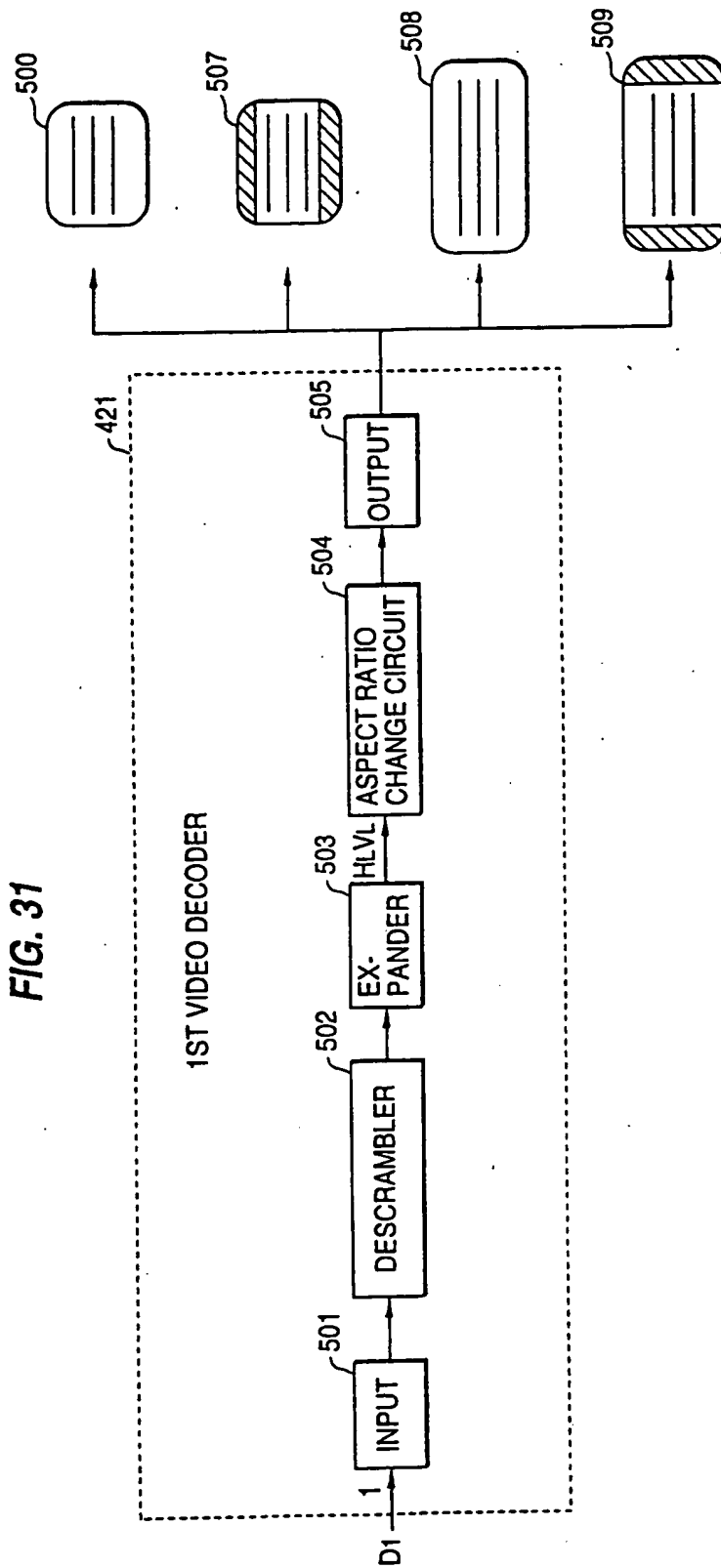
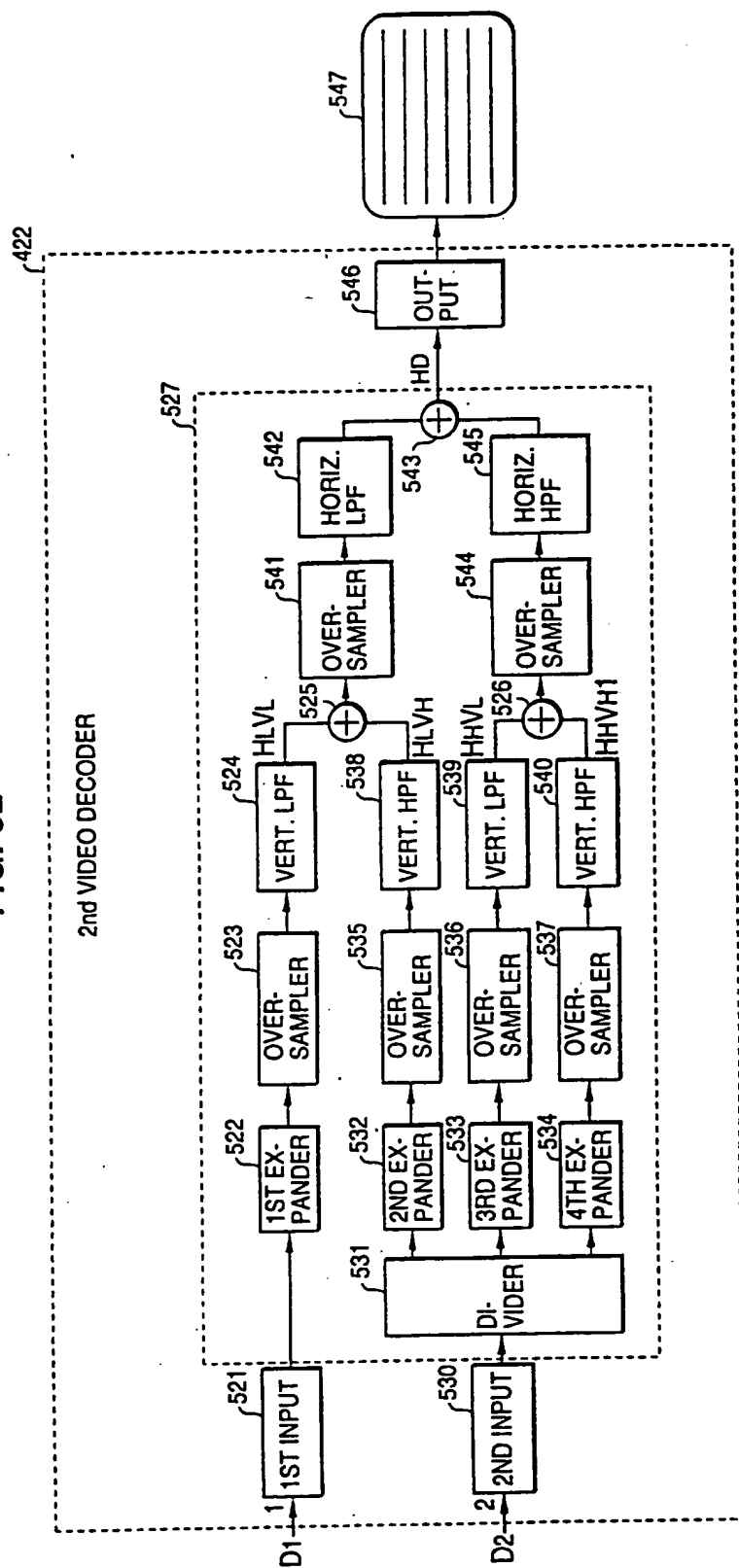


FIG. 32



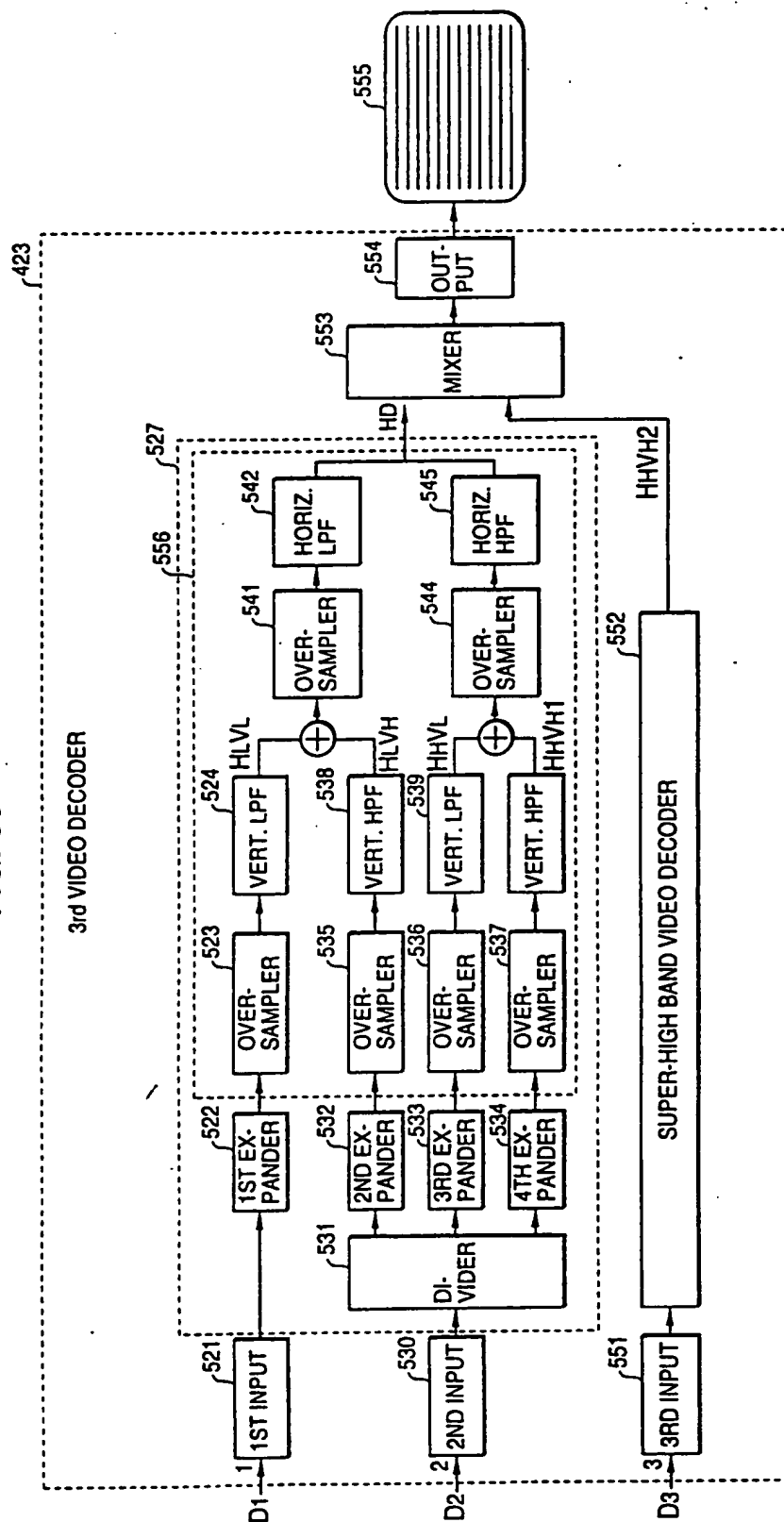


FIG. 34

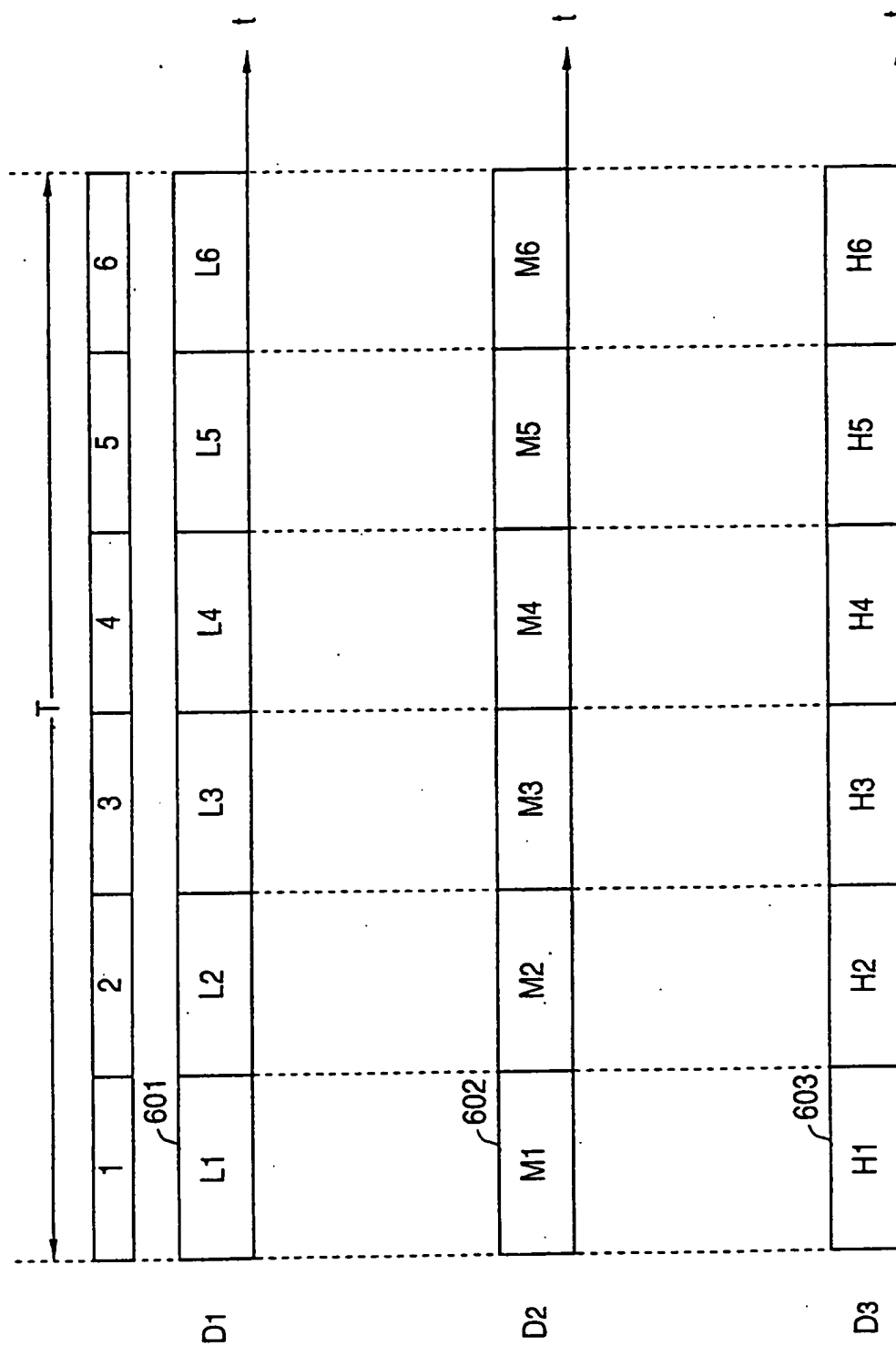


FIG. 35

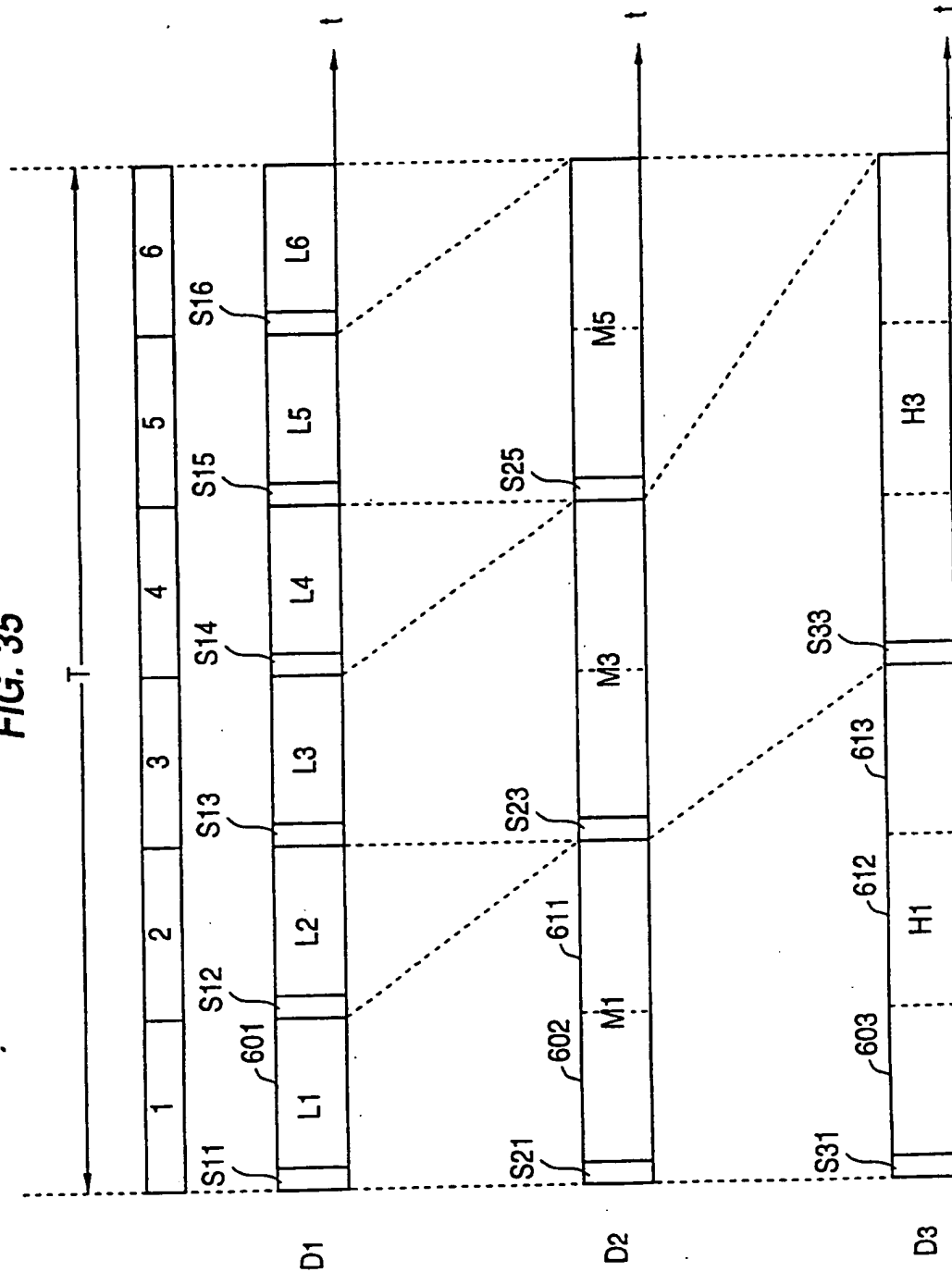


FIG. 36

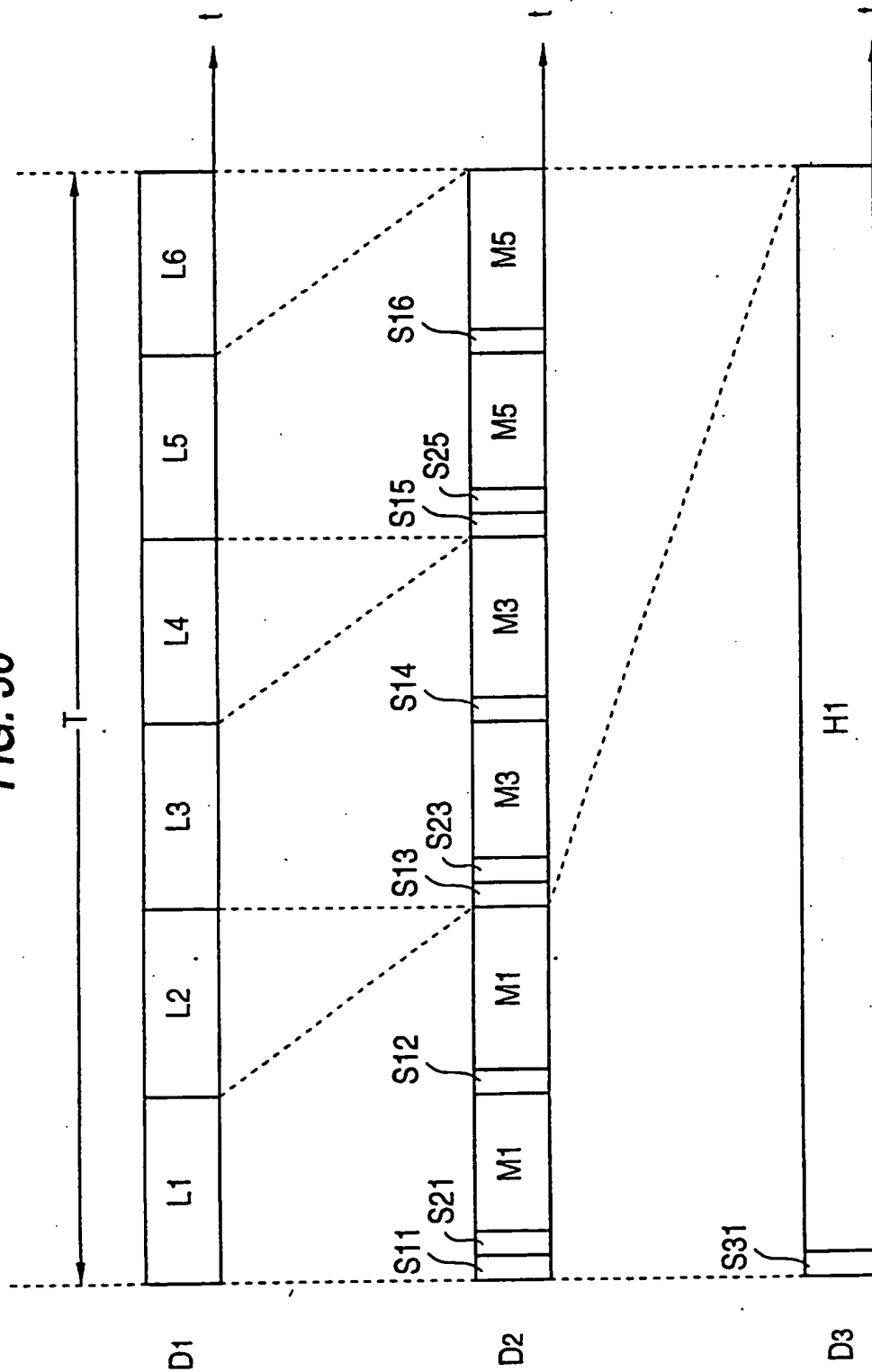


FIG. 37

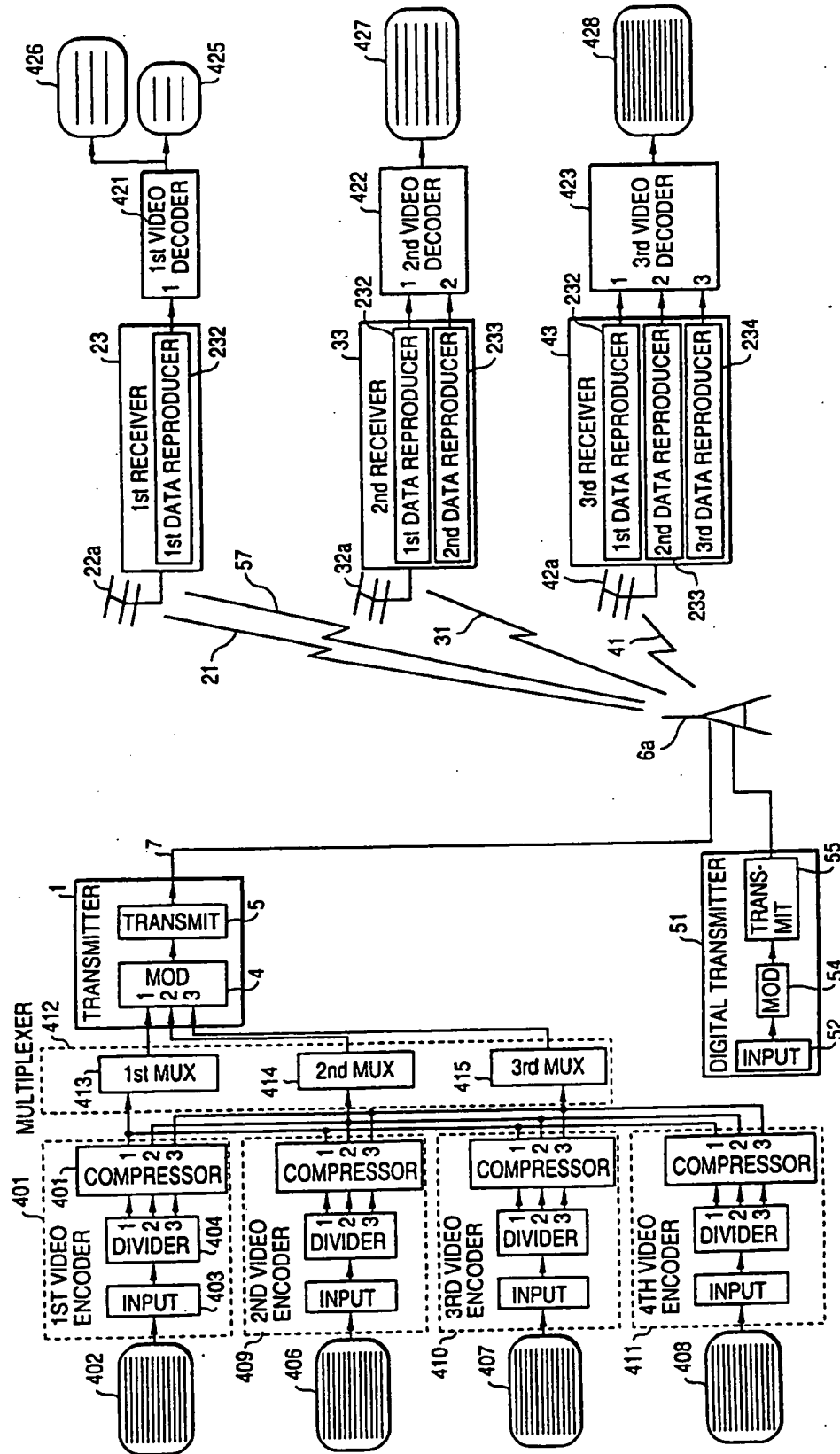


FIG. 38

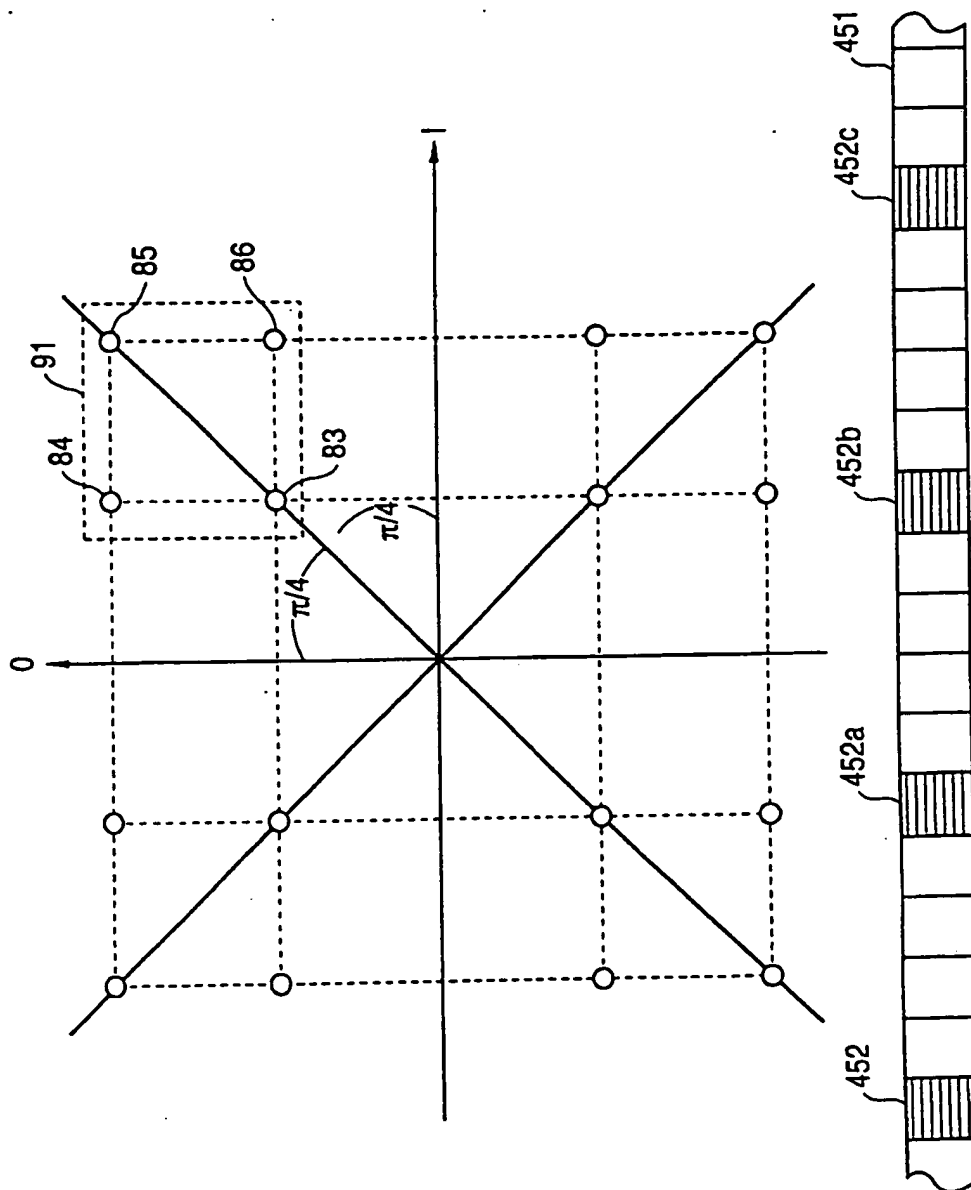


FIG. 39

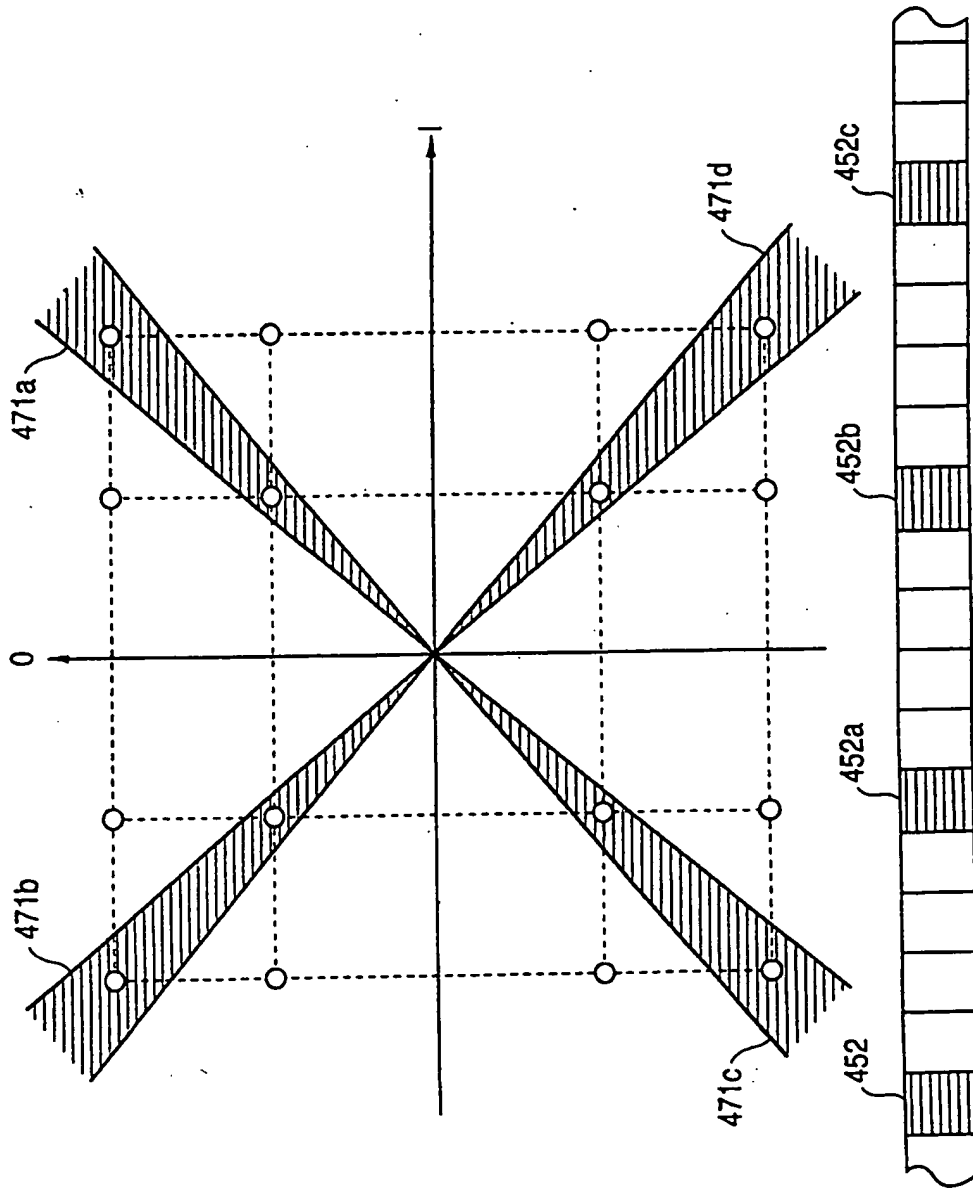
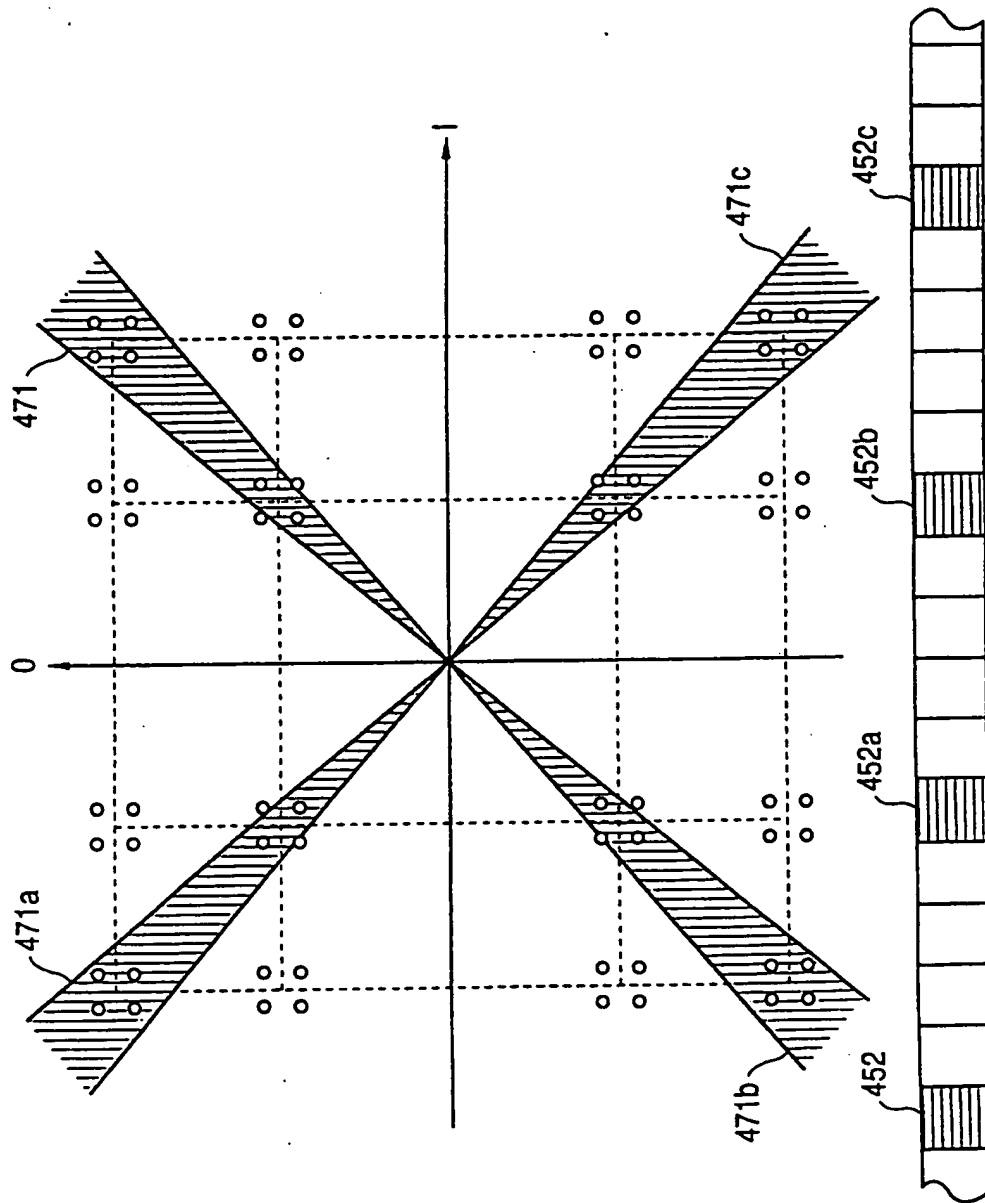


FIG. 40



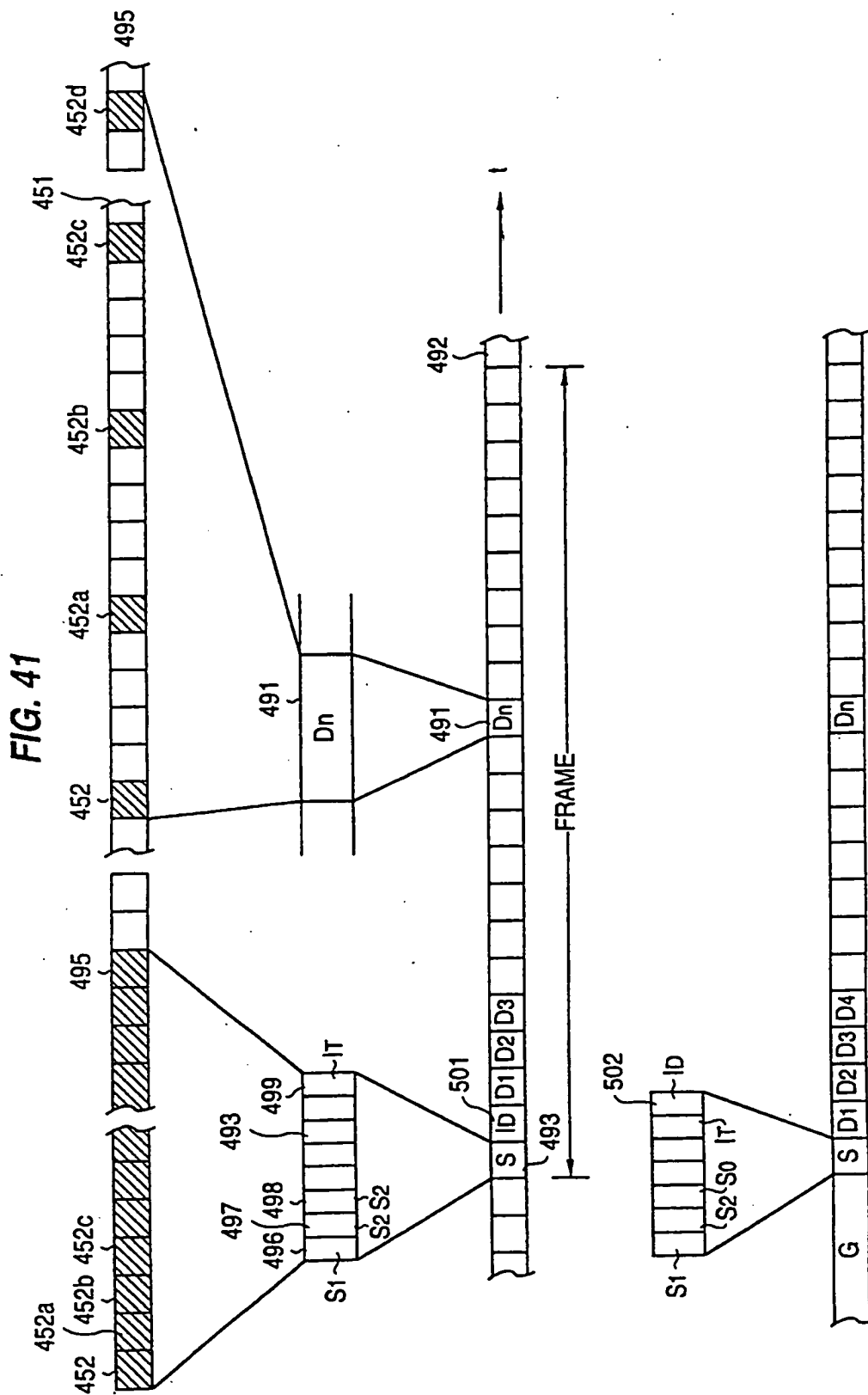


FIG. 42

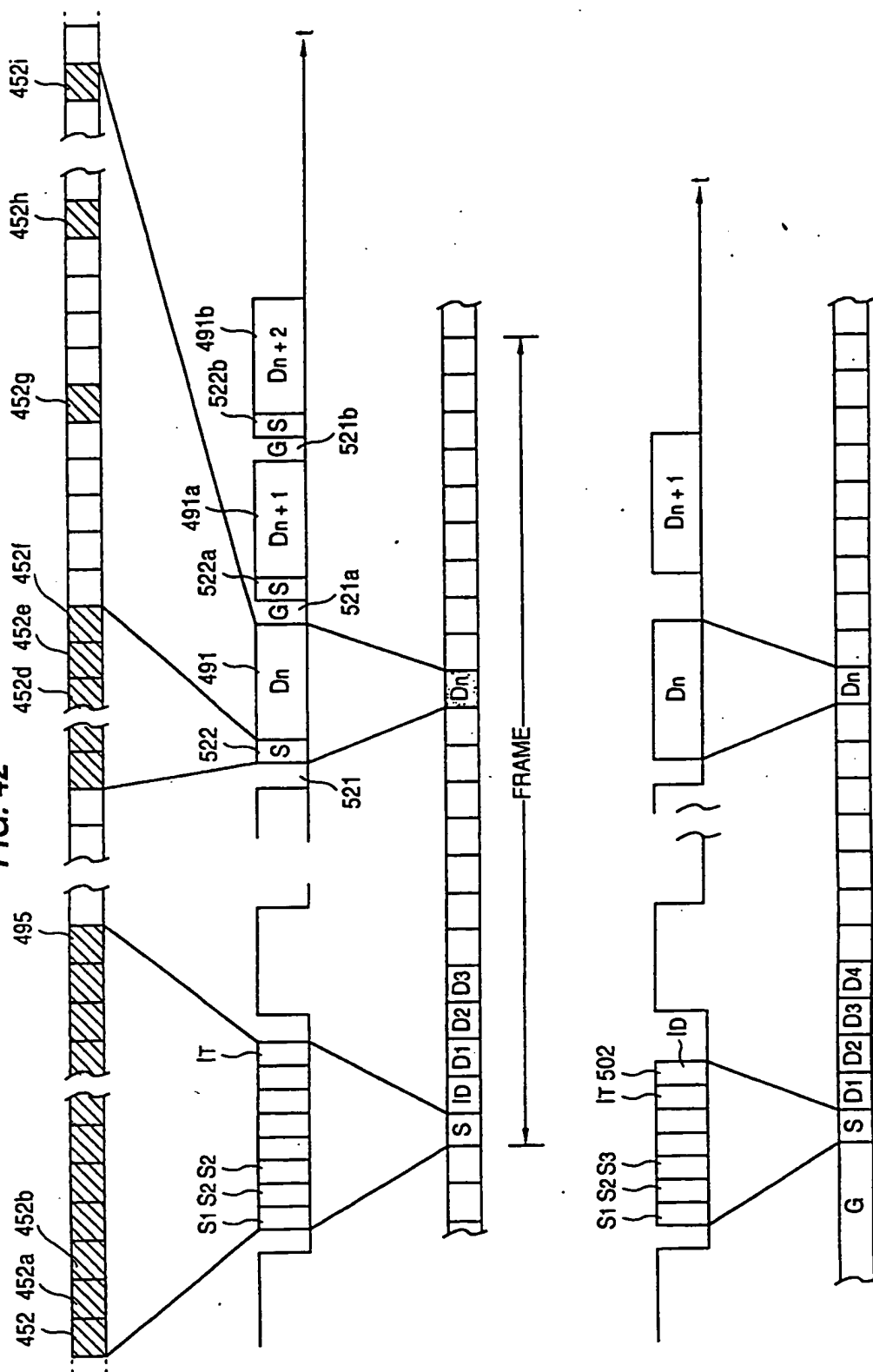


FIG. 43

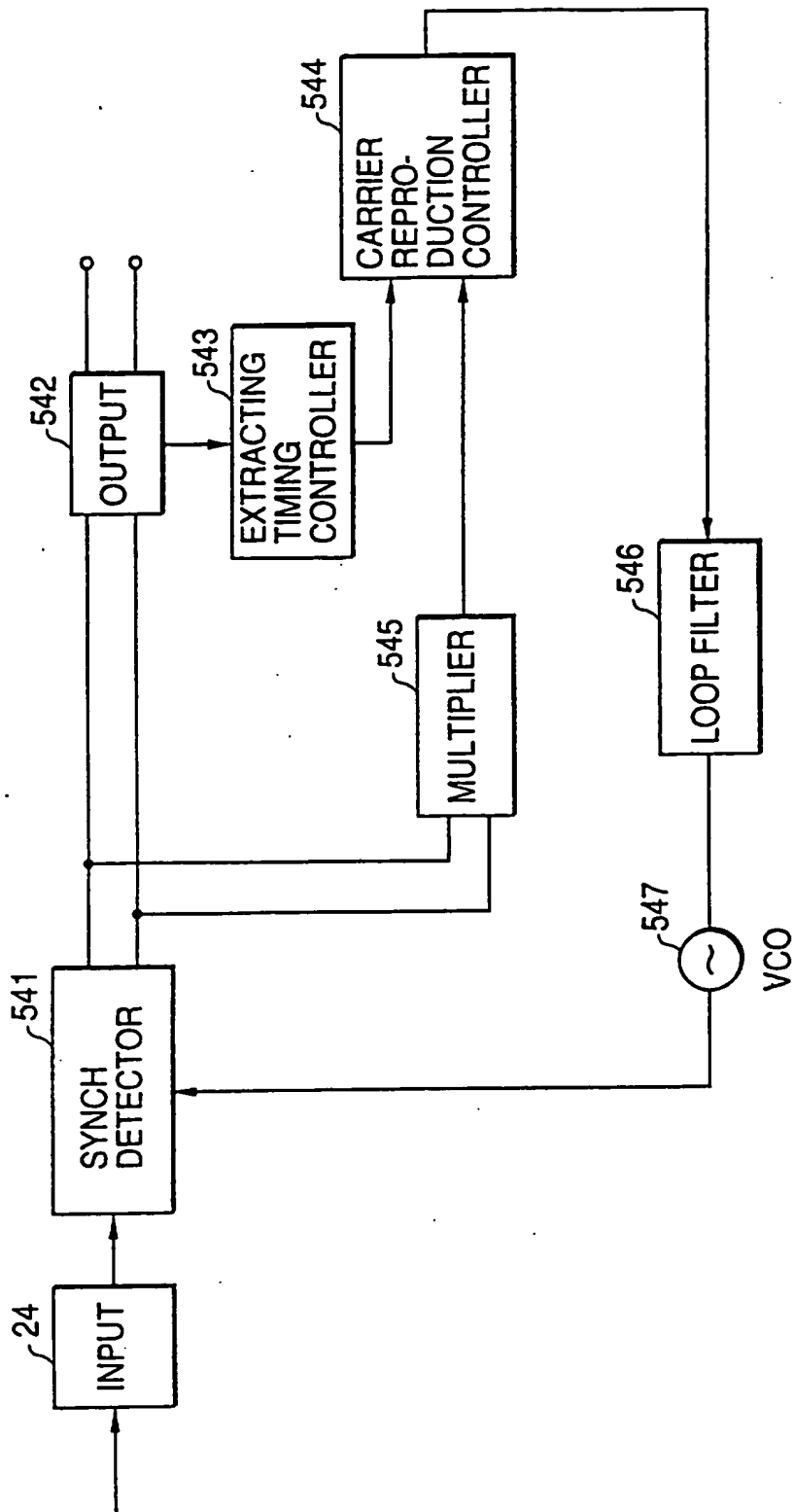


FIG. 44

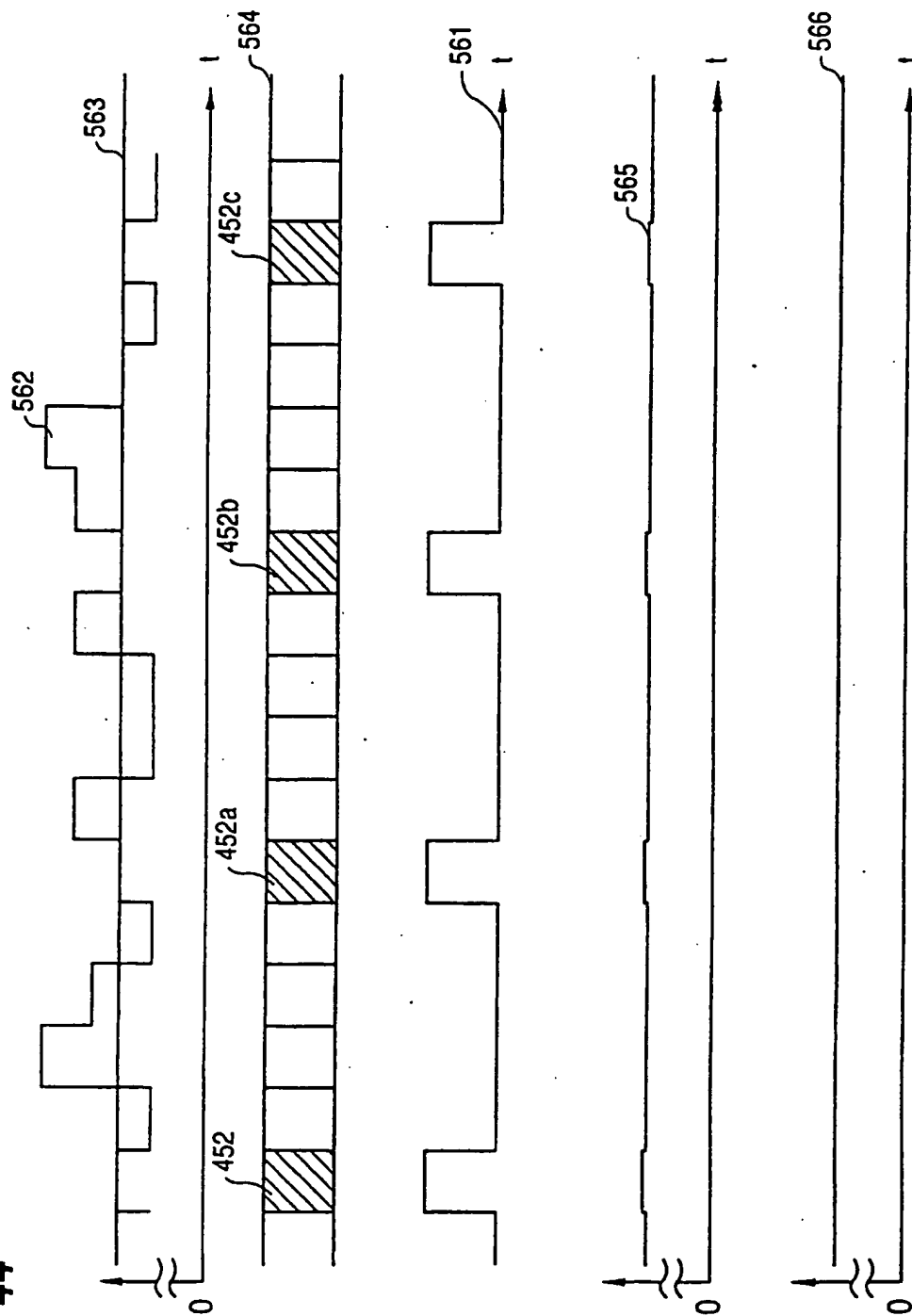


FIG. 45

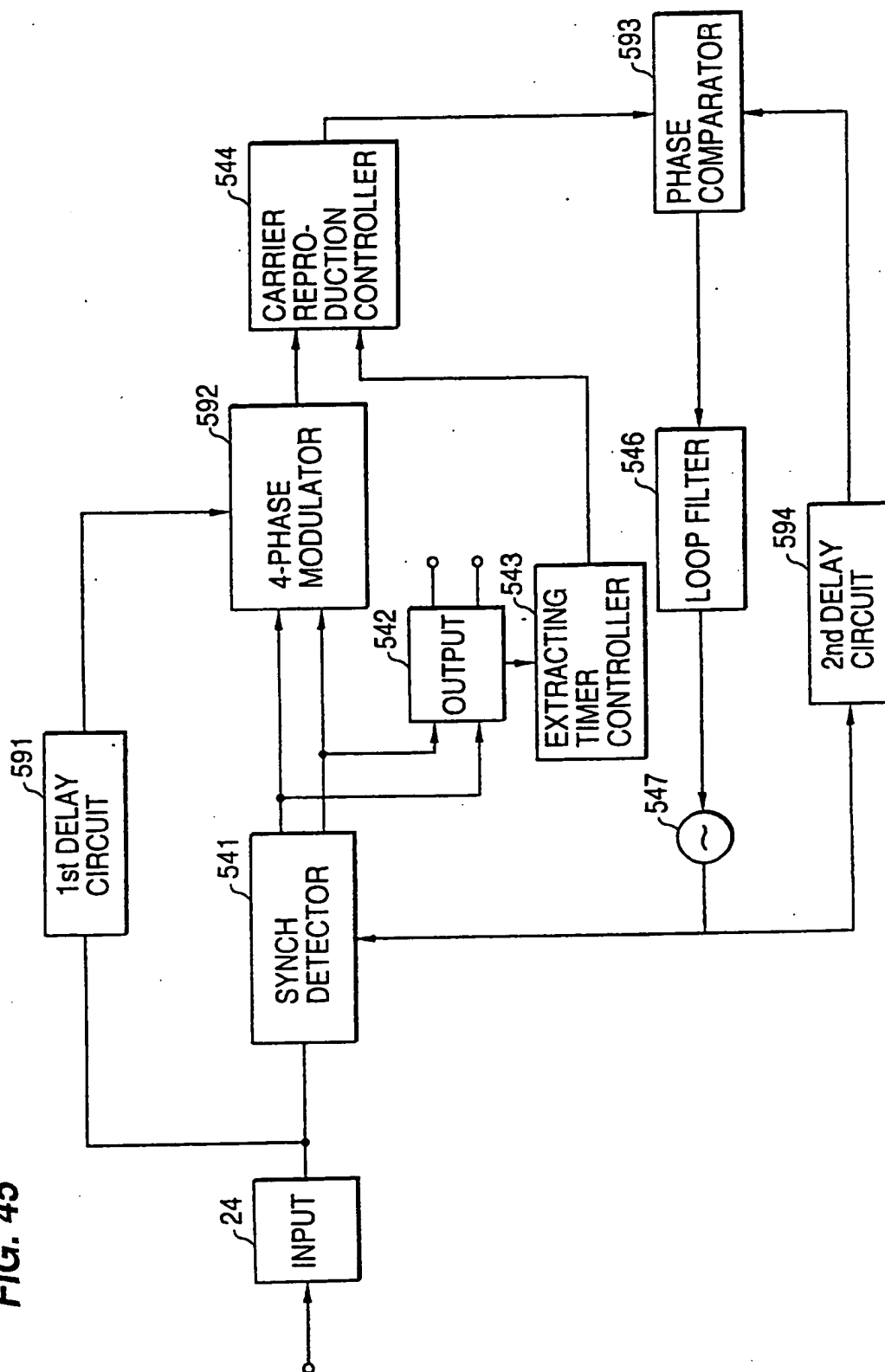


FIG. 46

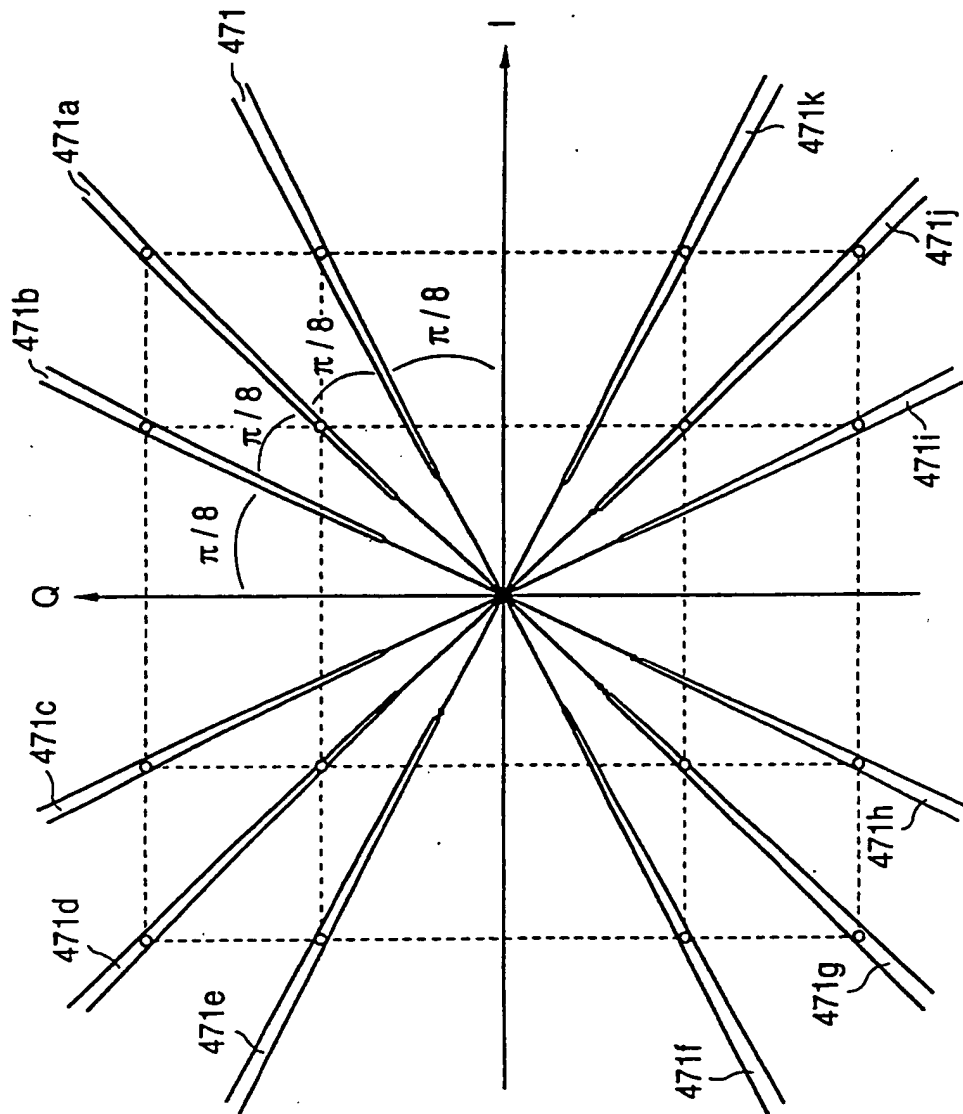


FIG. 47

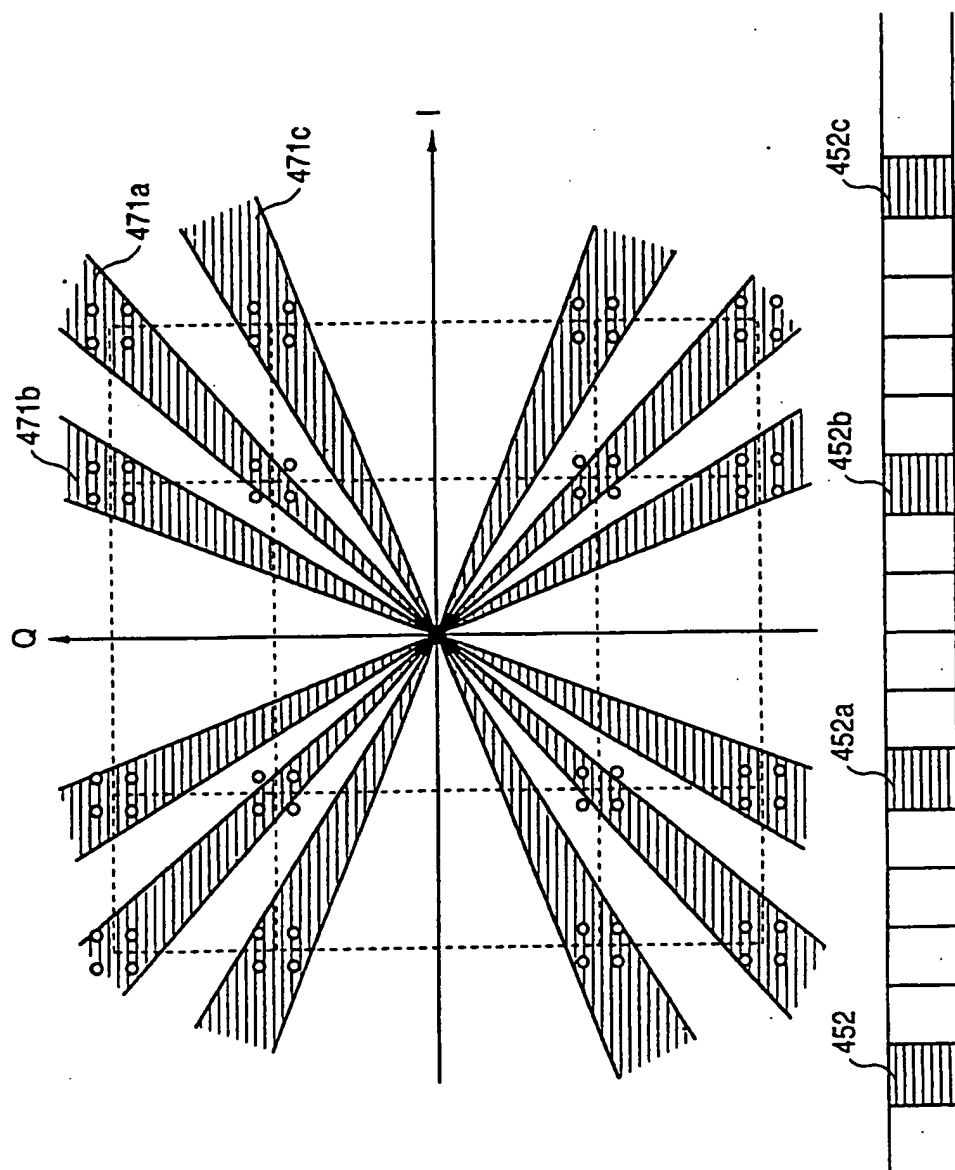


FIG. 48

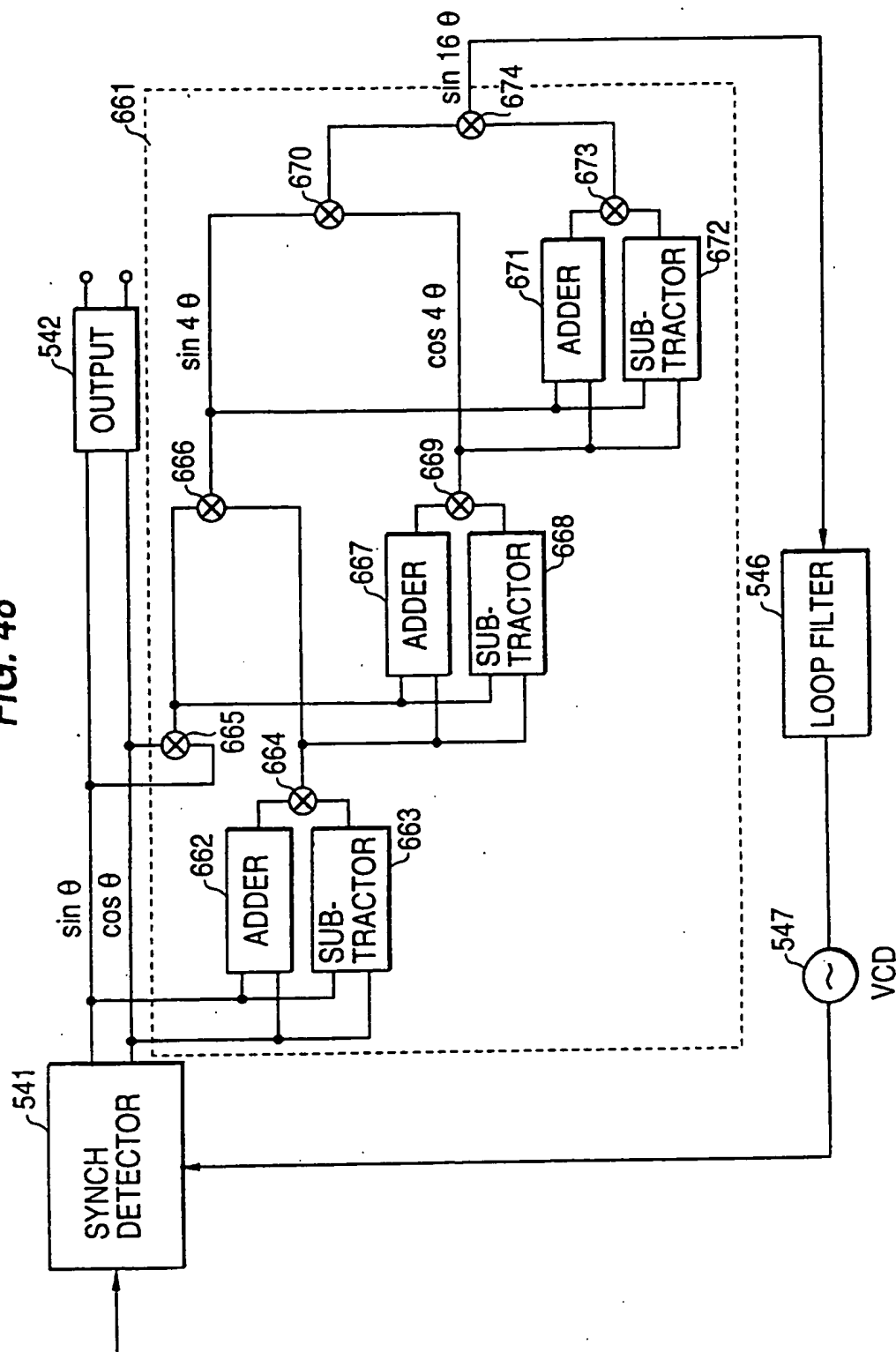


FIG. 49

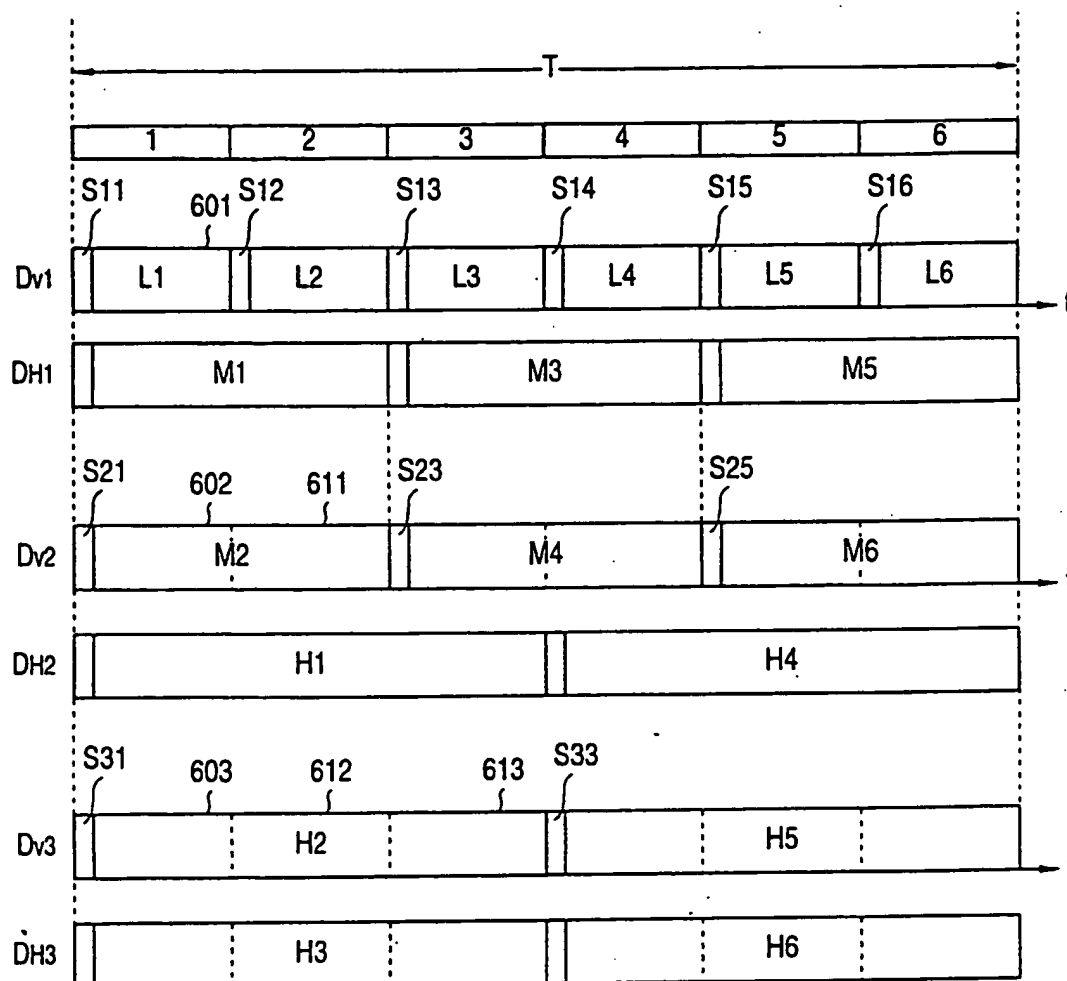


FIG. 50

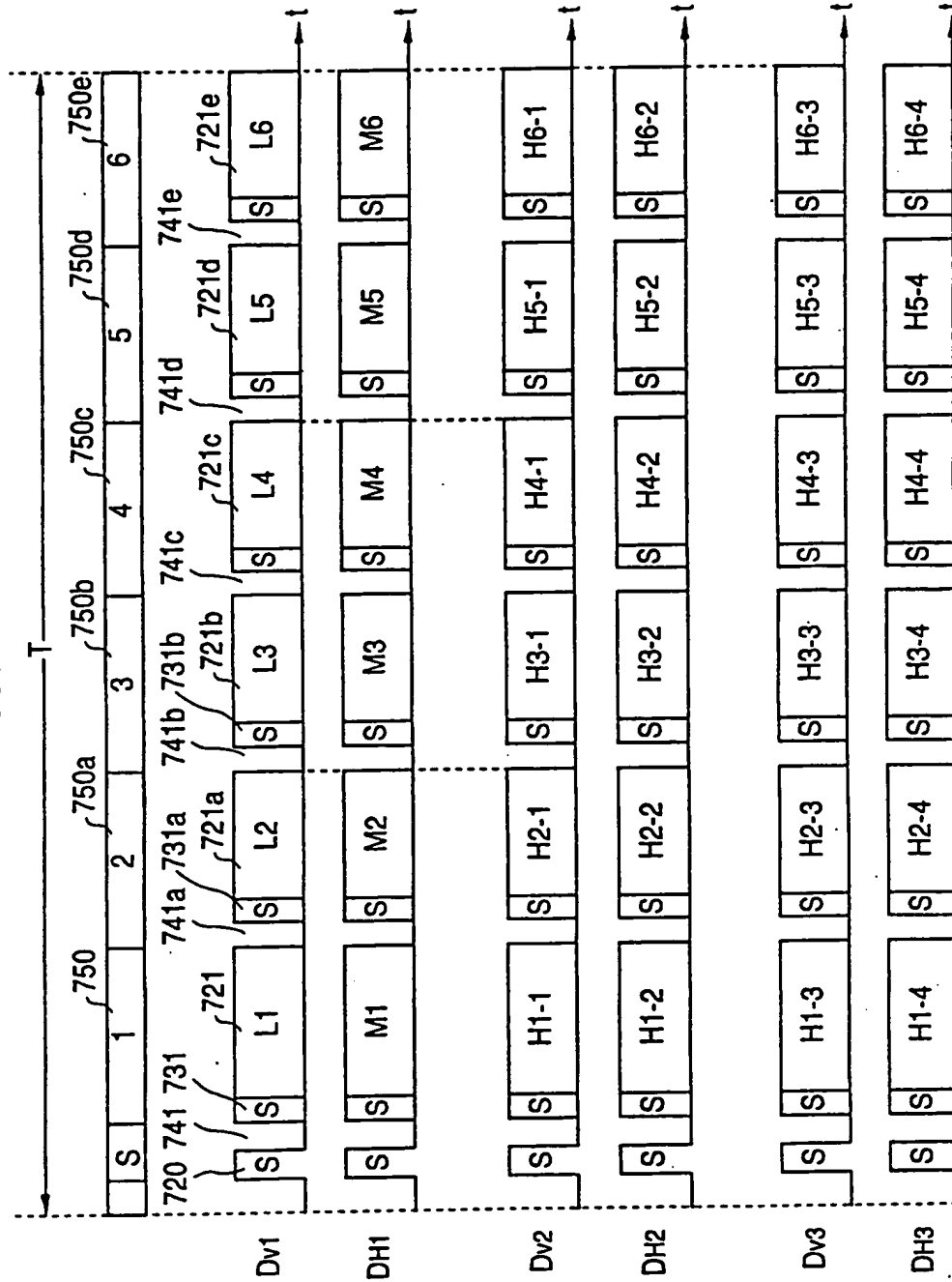


FIG. 51

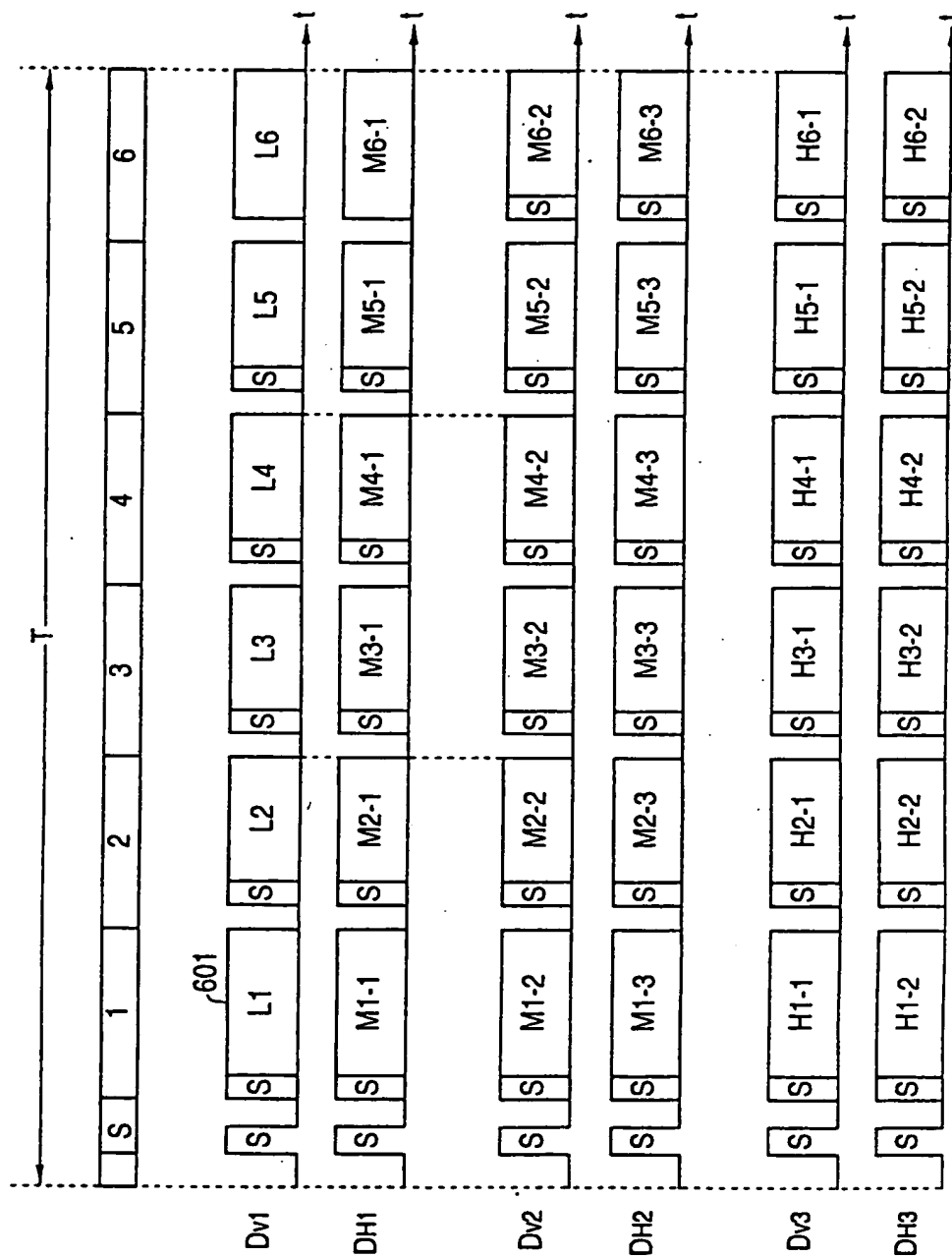


FIG. 52

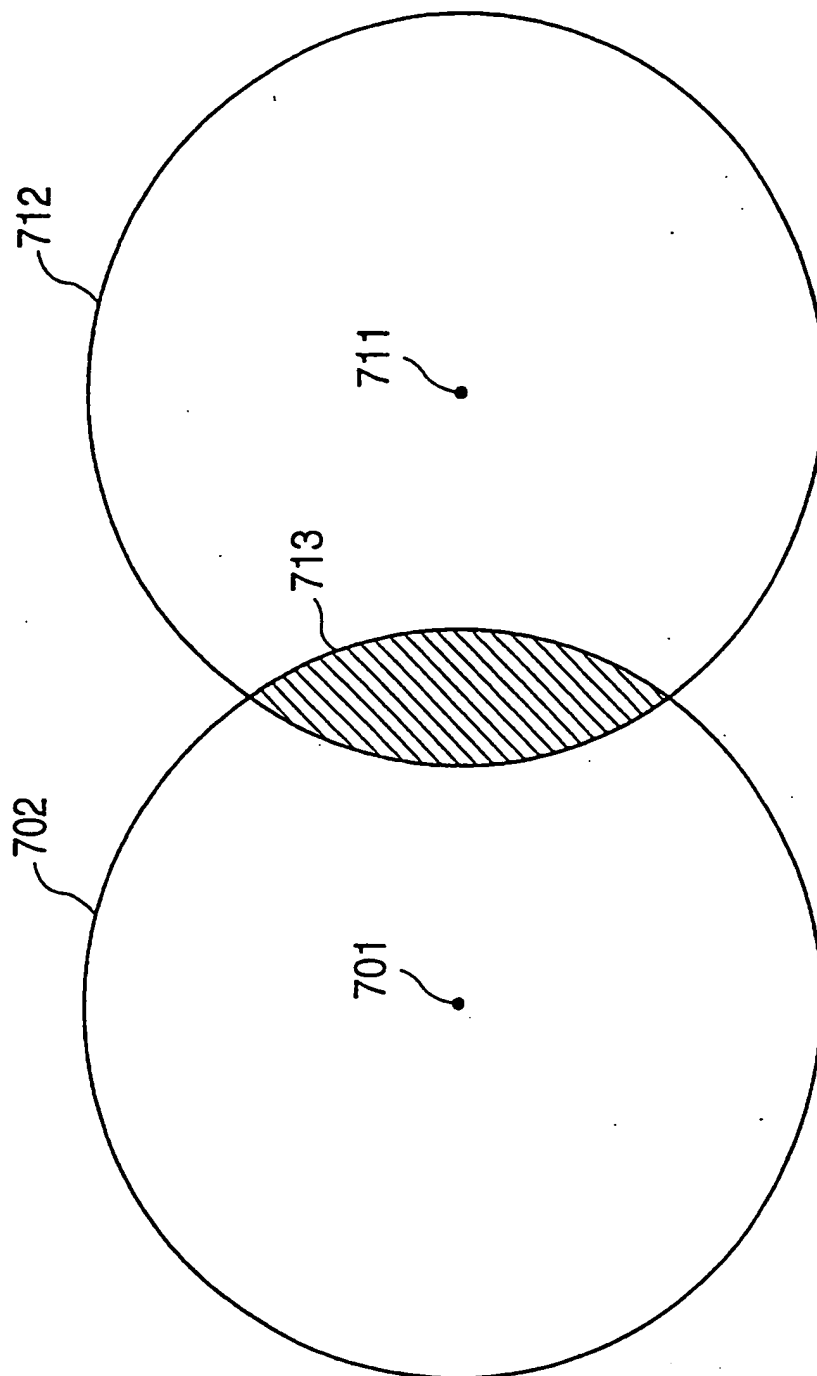


FIG. 53

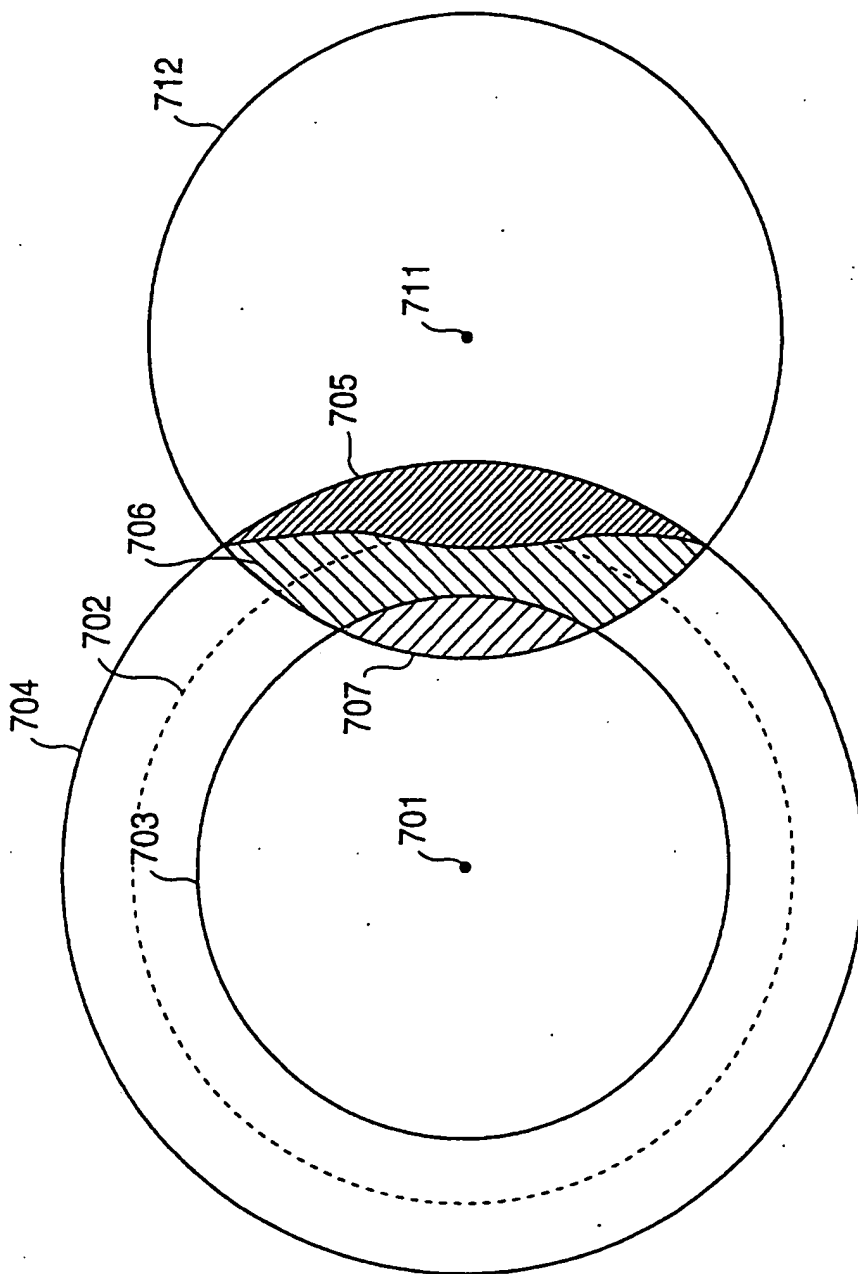


FIG. 54

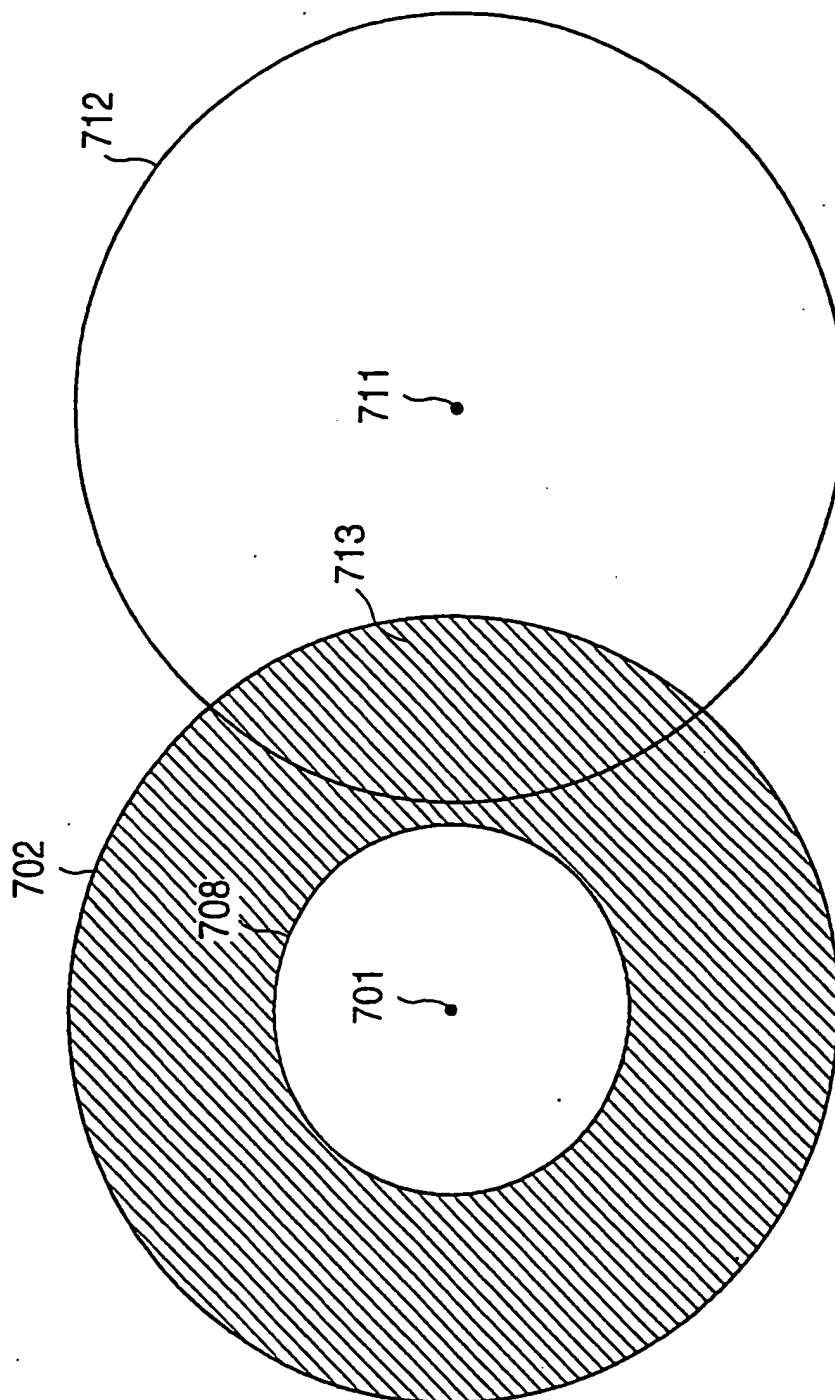
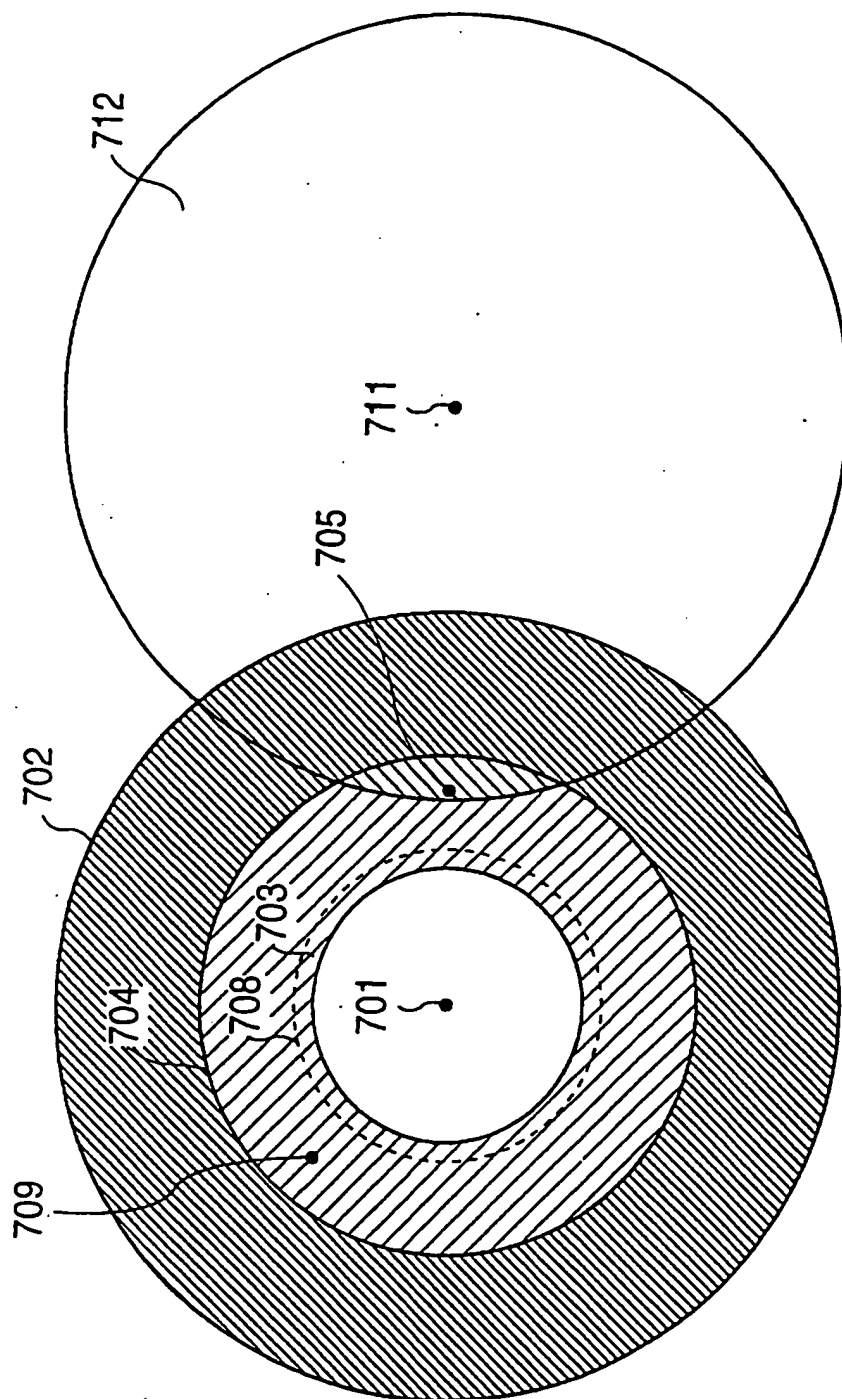


FIG. 55



2025 RELEASE UNDER E.O. 14176

FIG. 56

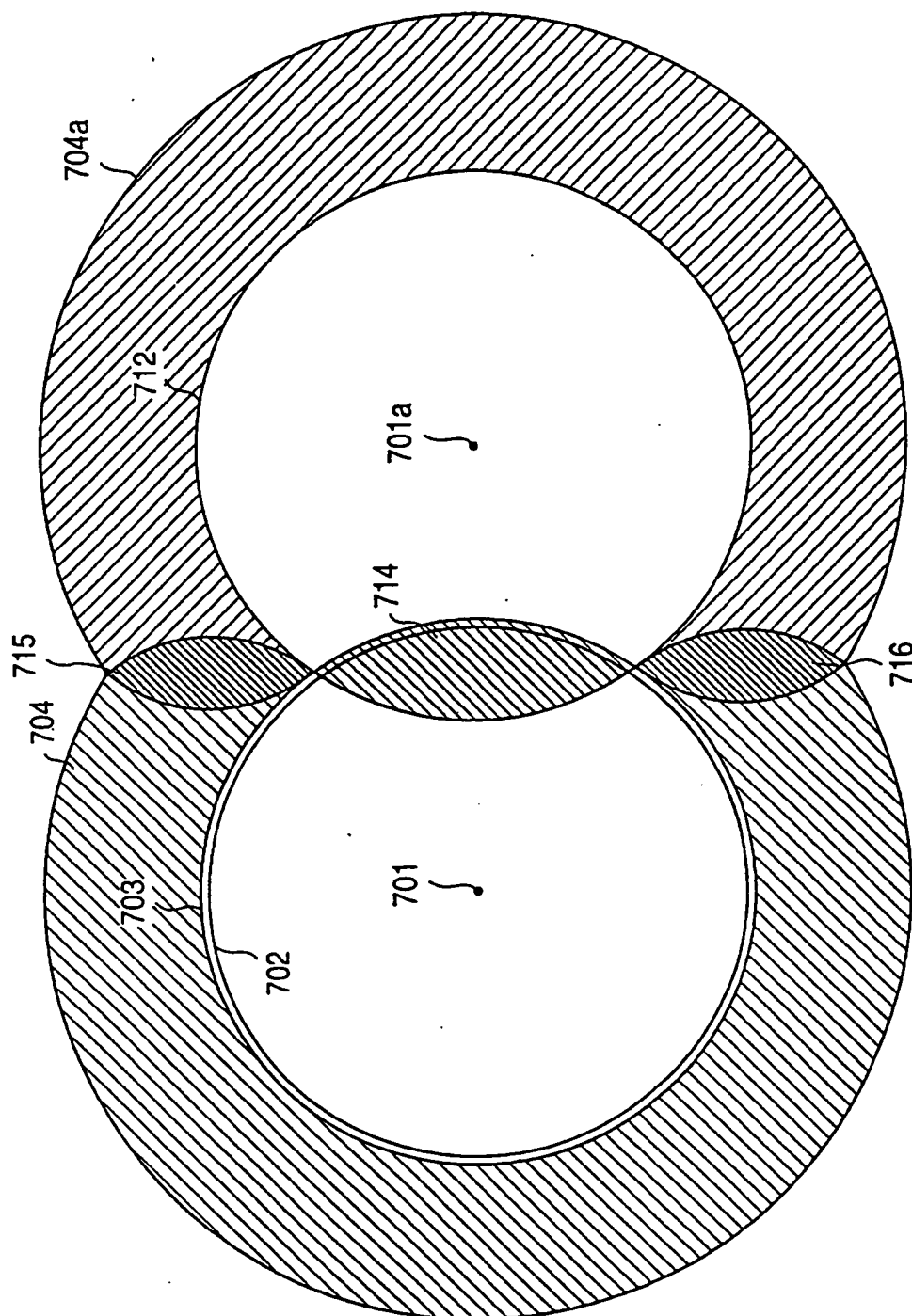


FIG. 57

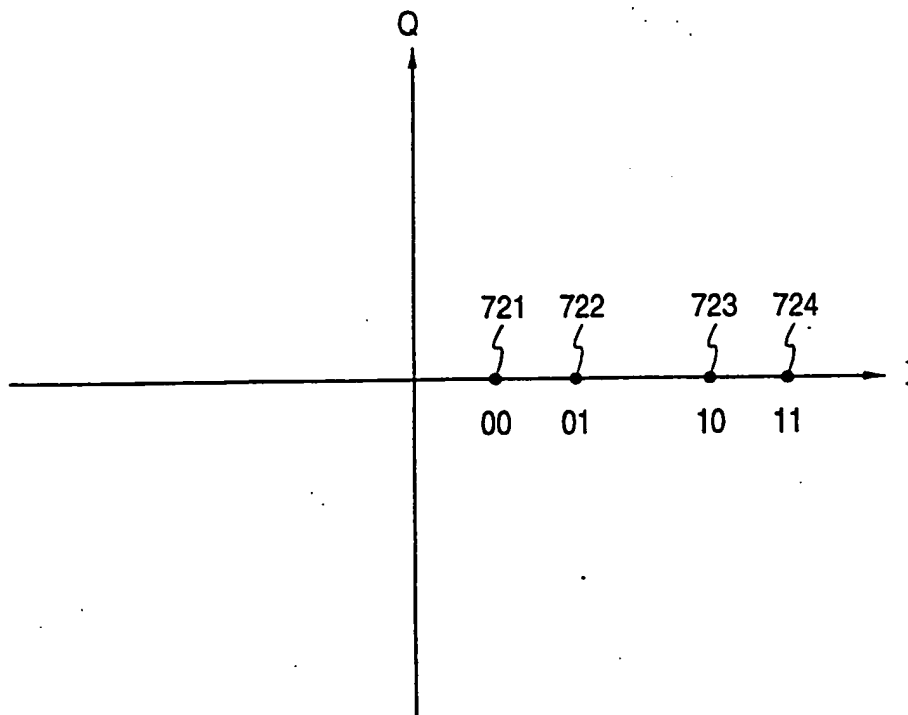


FIG. 58

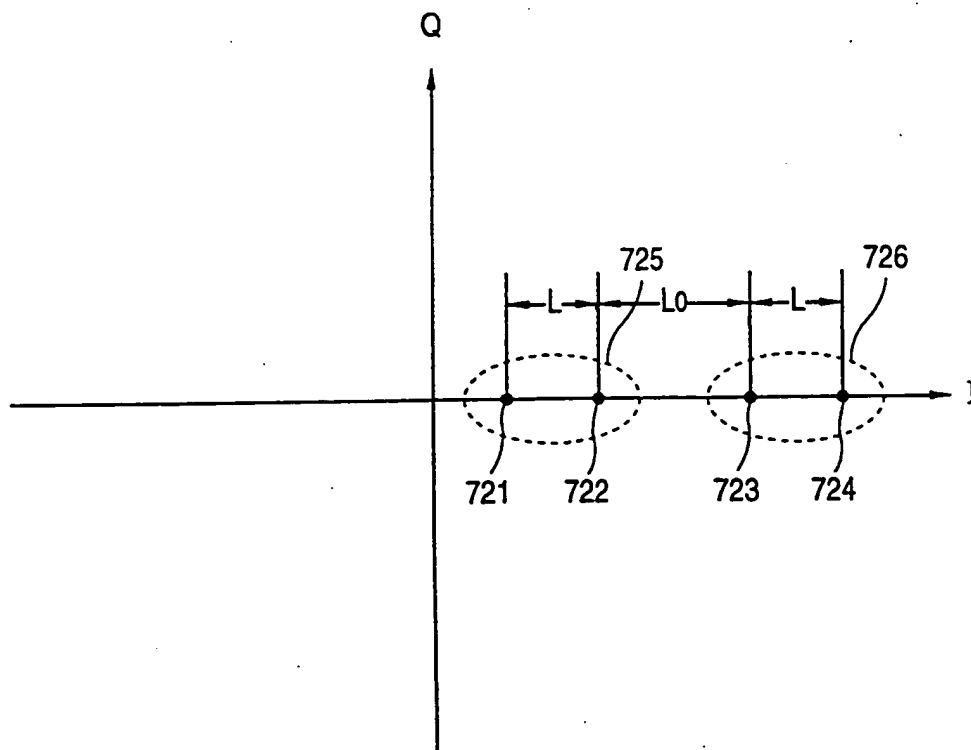


FIG. 59(a)

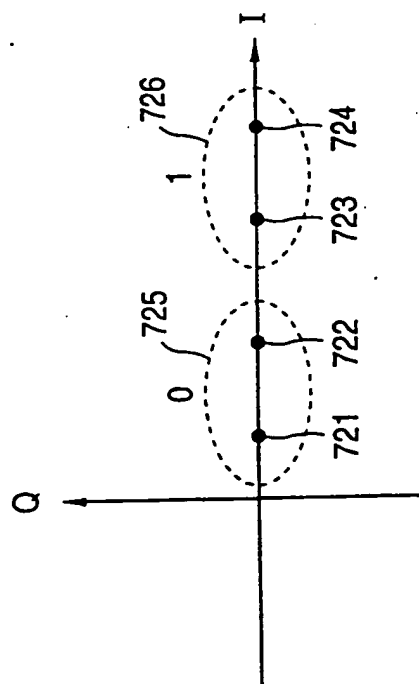


FIG. 59(b)

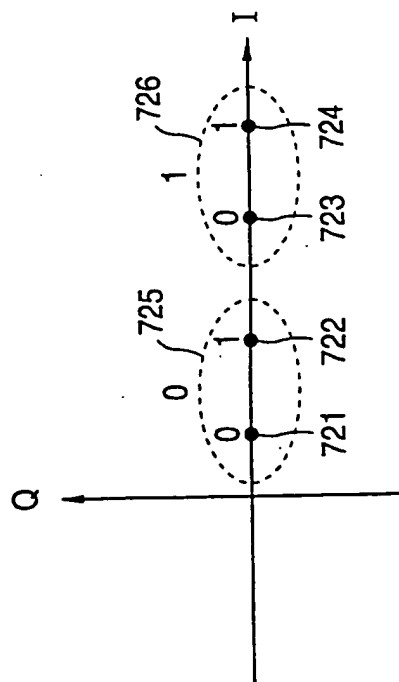


FIG. 59(c)

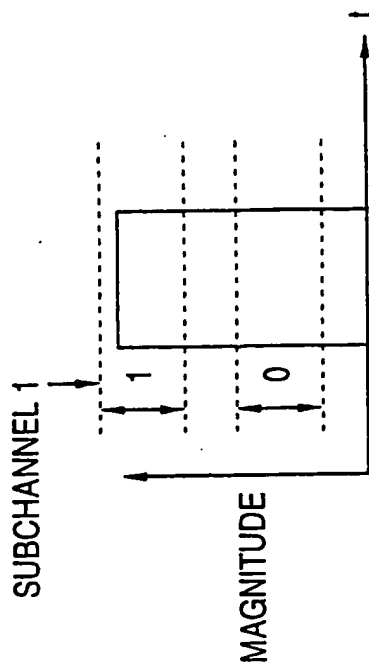


FIG. 59(d)

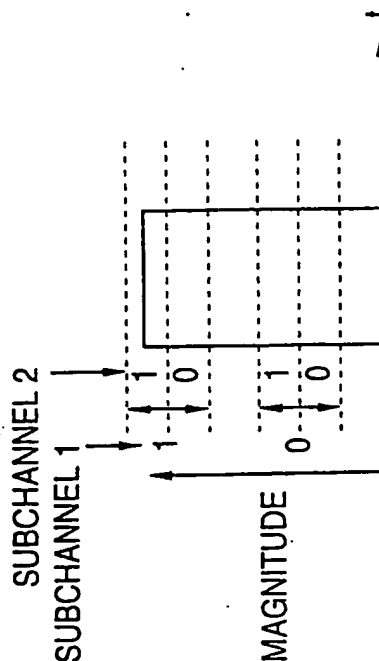


FIG. 60

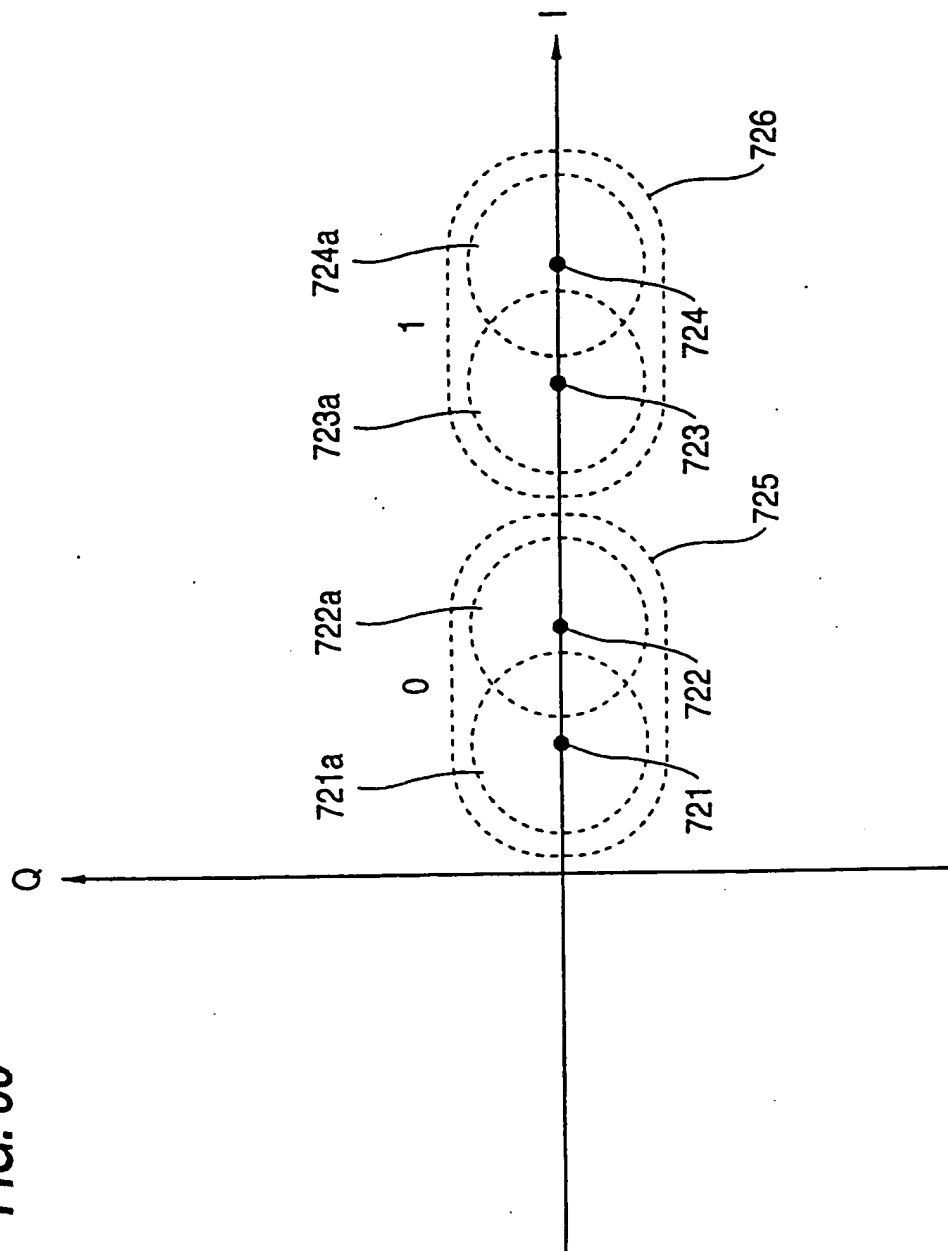


FIG. 61

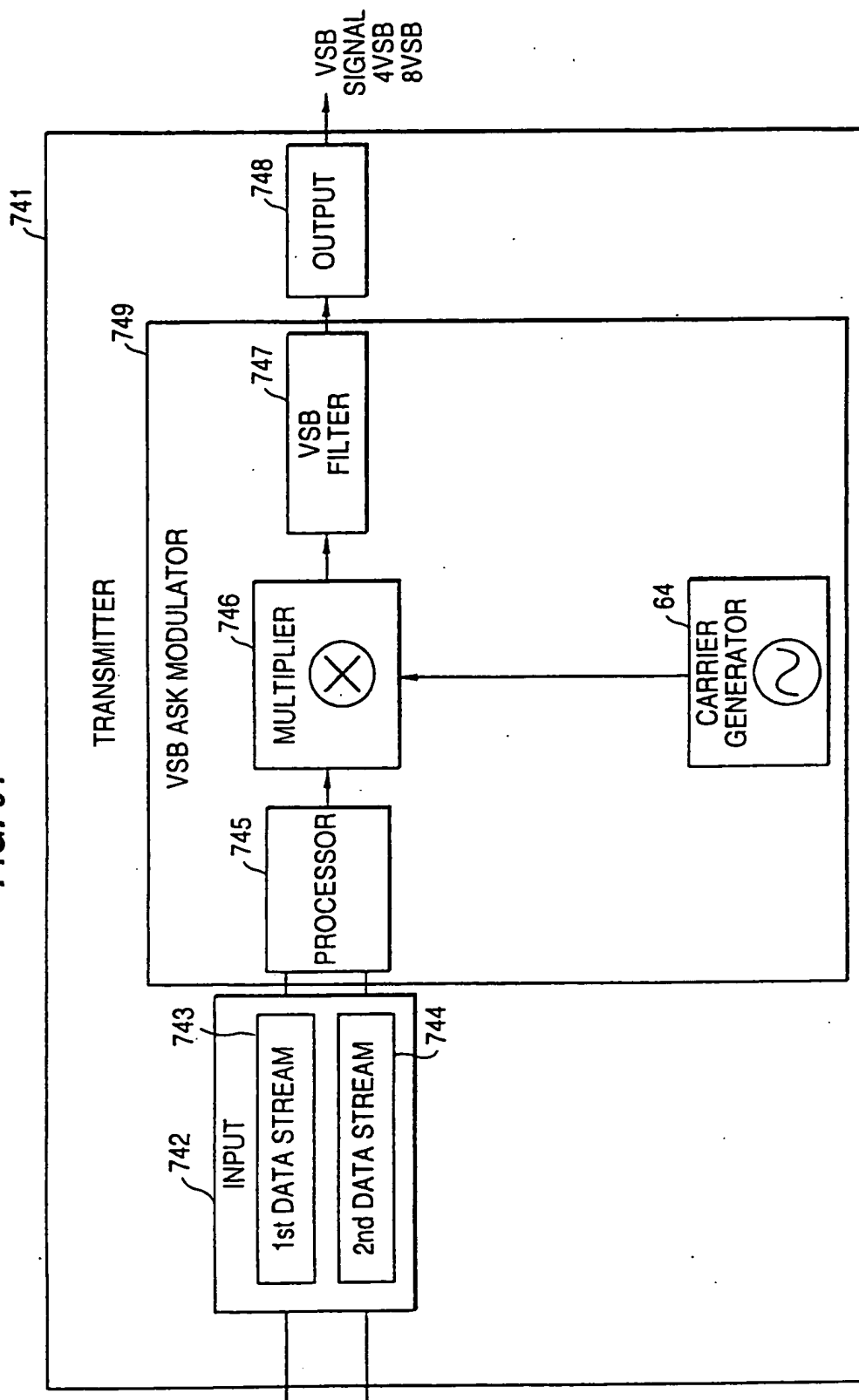


FIG. 62(a)

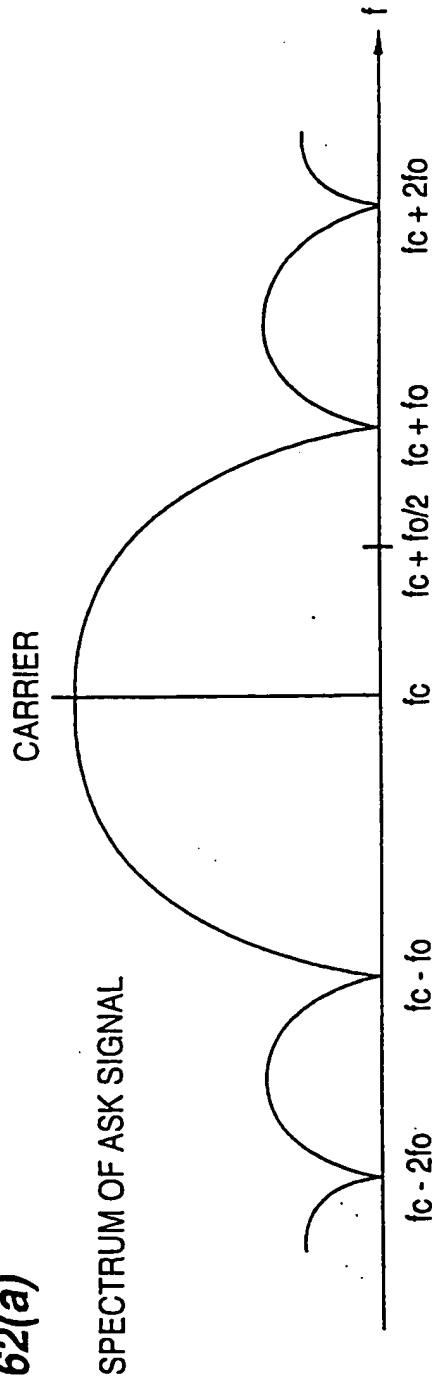


FIG. 62(b)

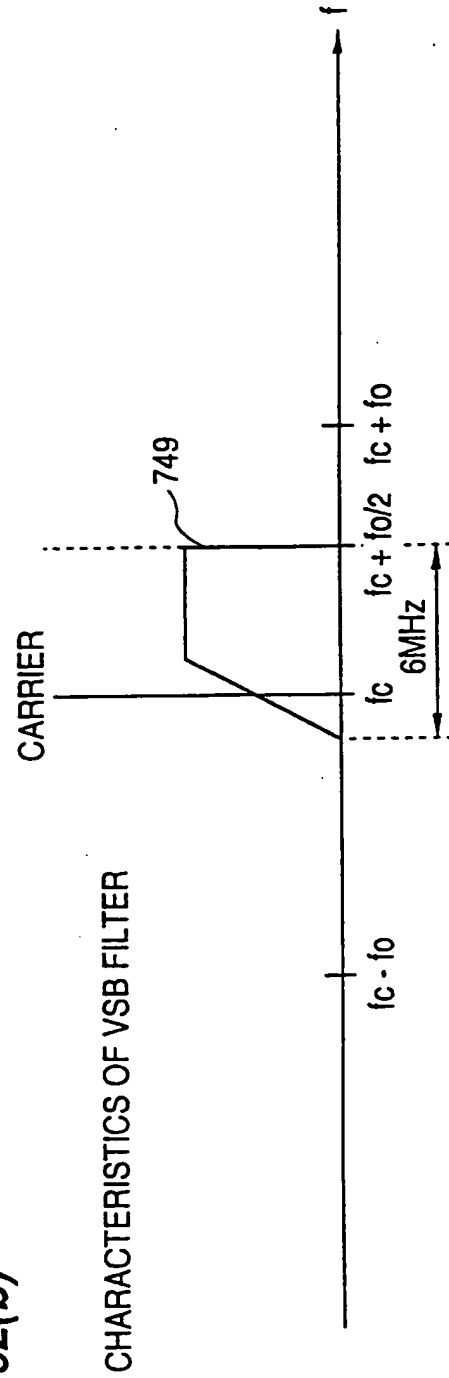


FIG. 63

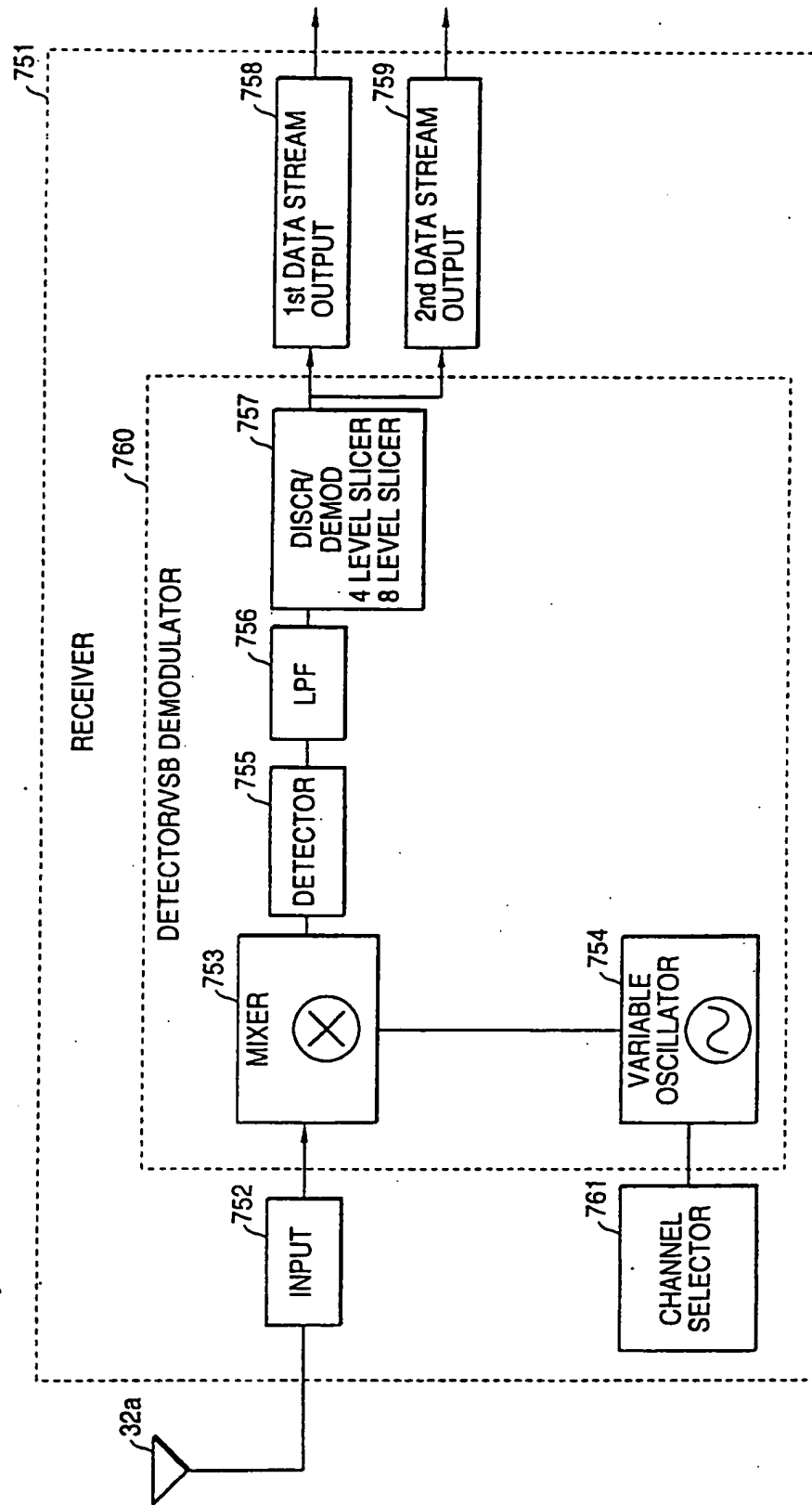


FIG. 64

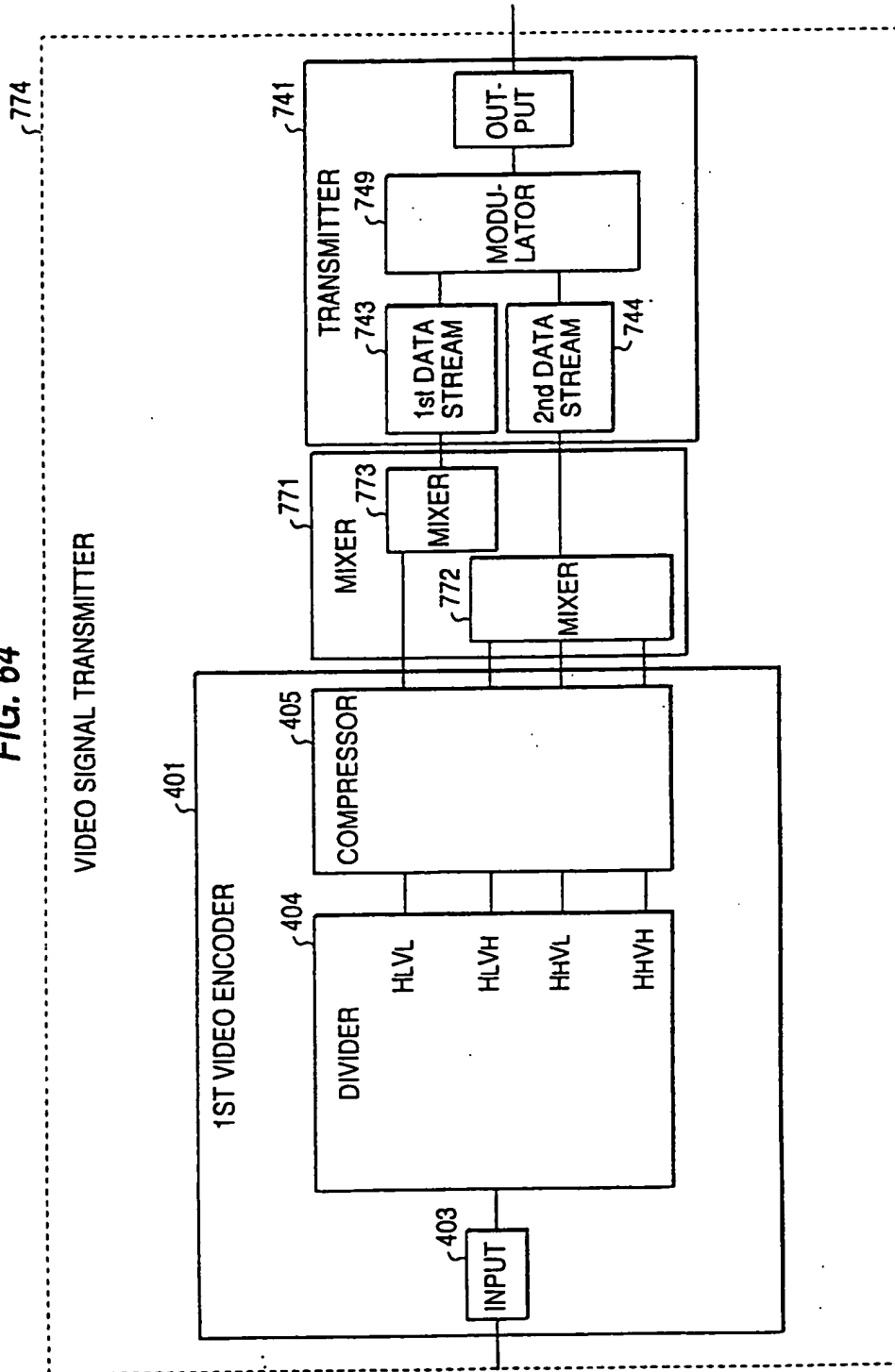
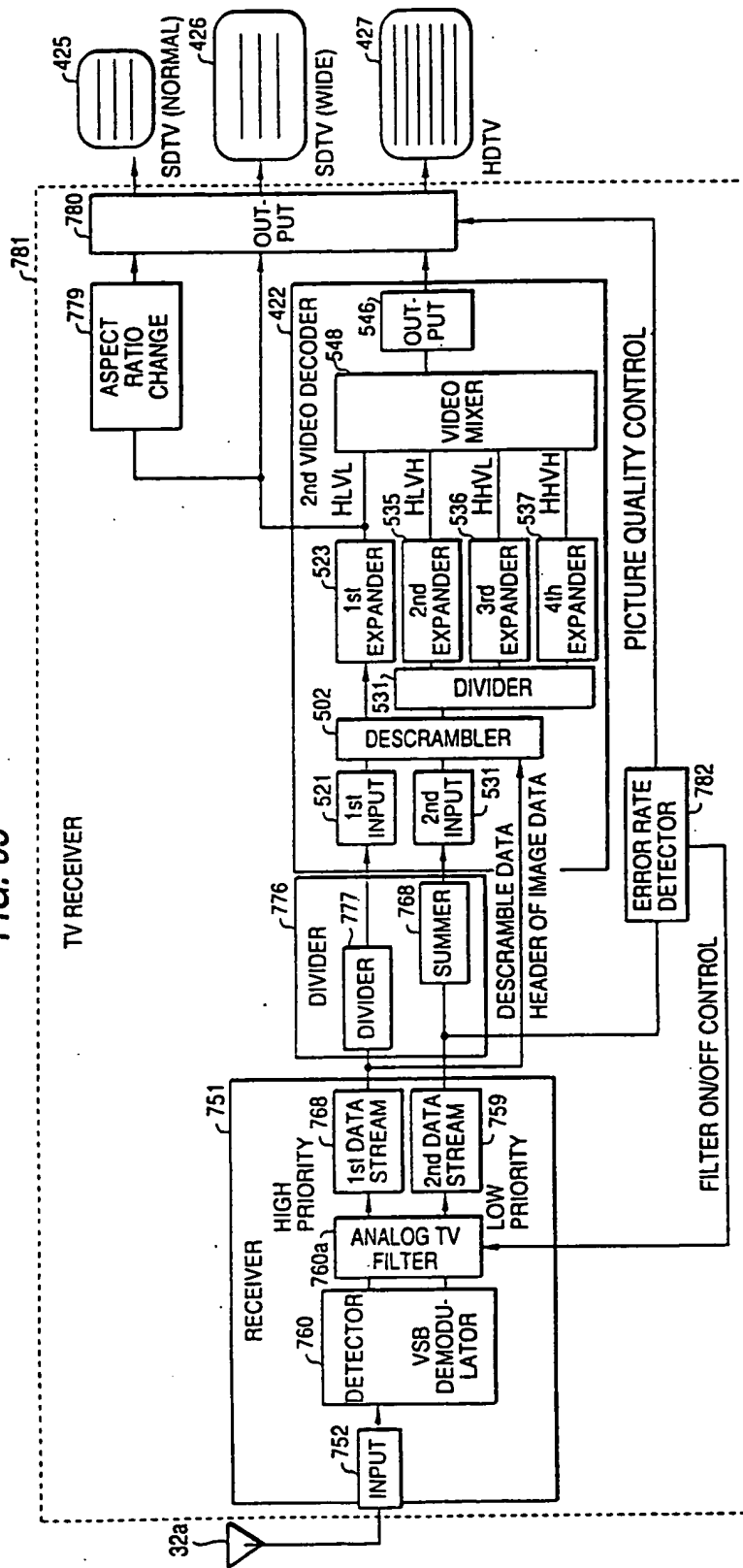


FIG. 65



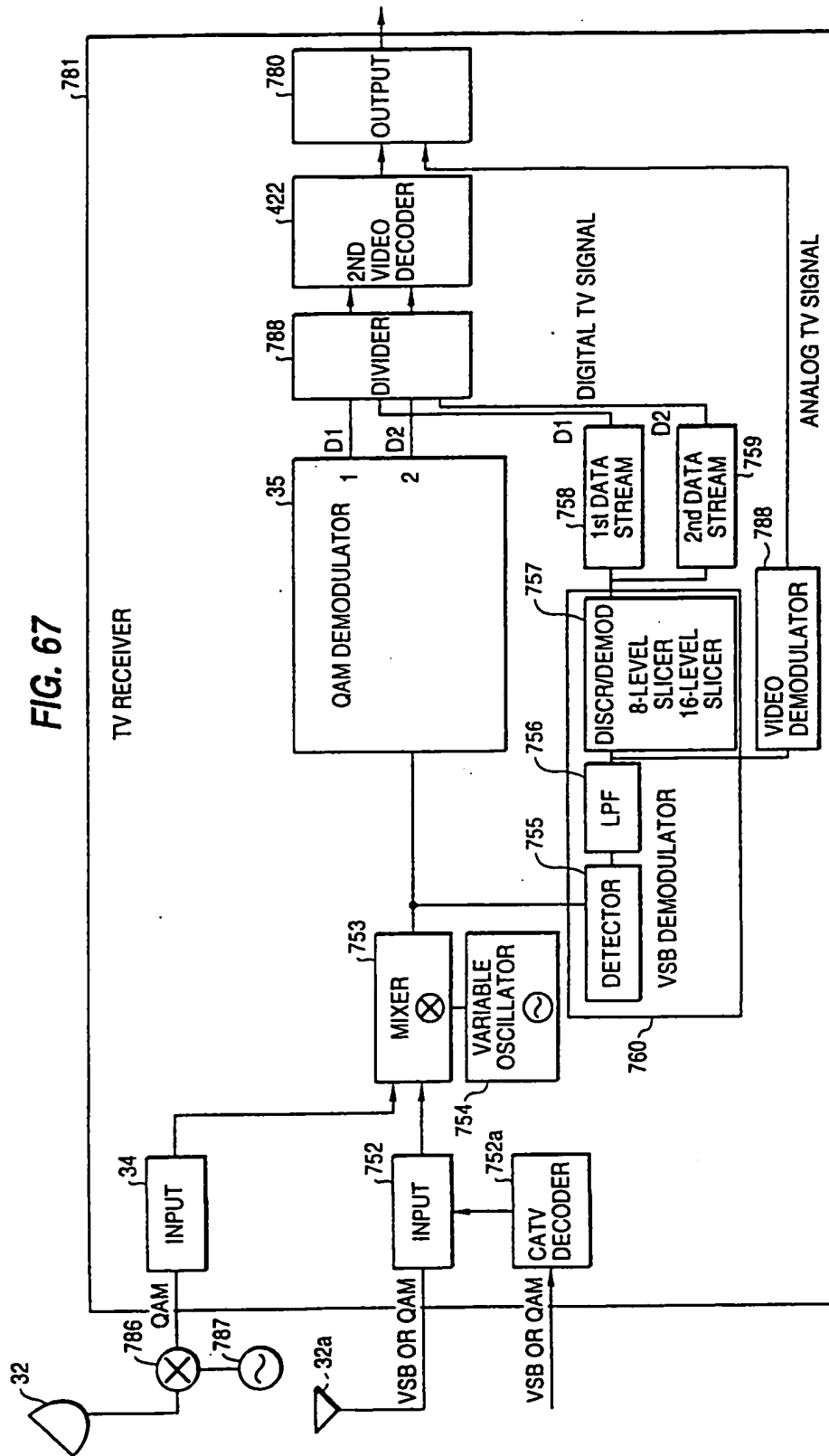


FIG. 68(a)

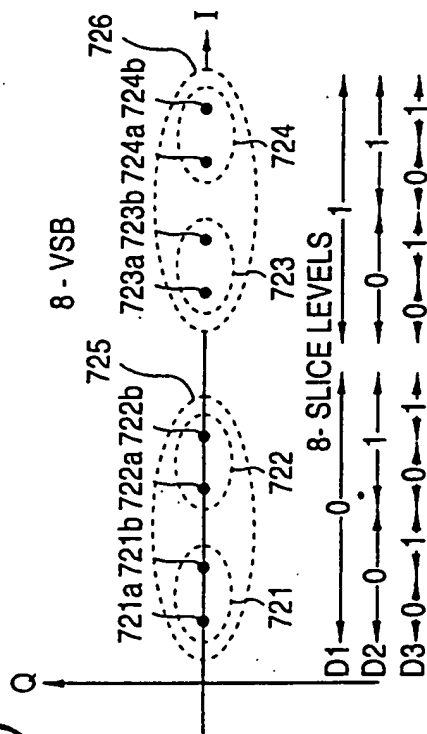


FIG. 68(b)

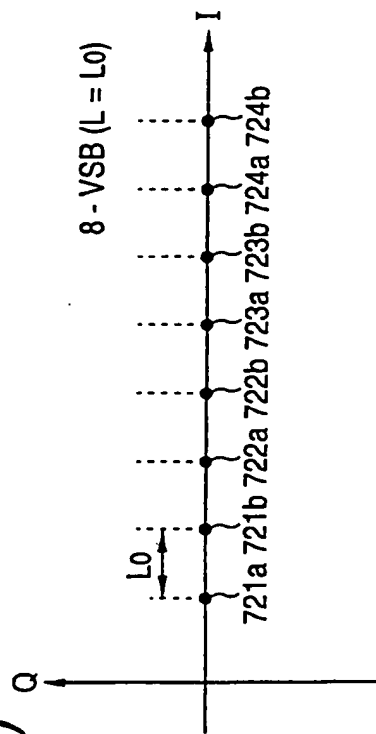


FIG. 68(c)

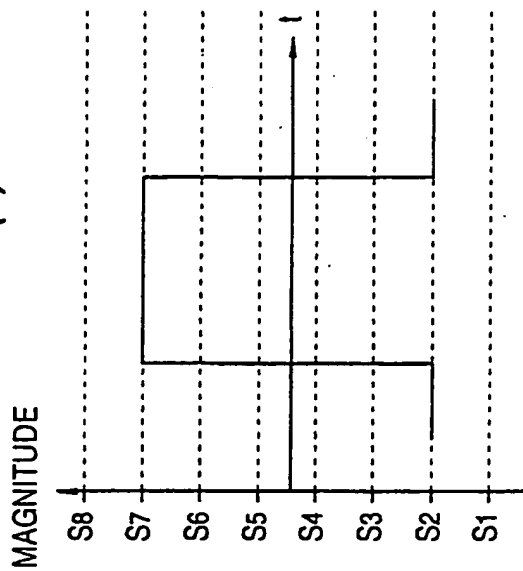


FIG. 69

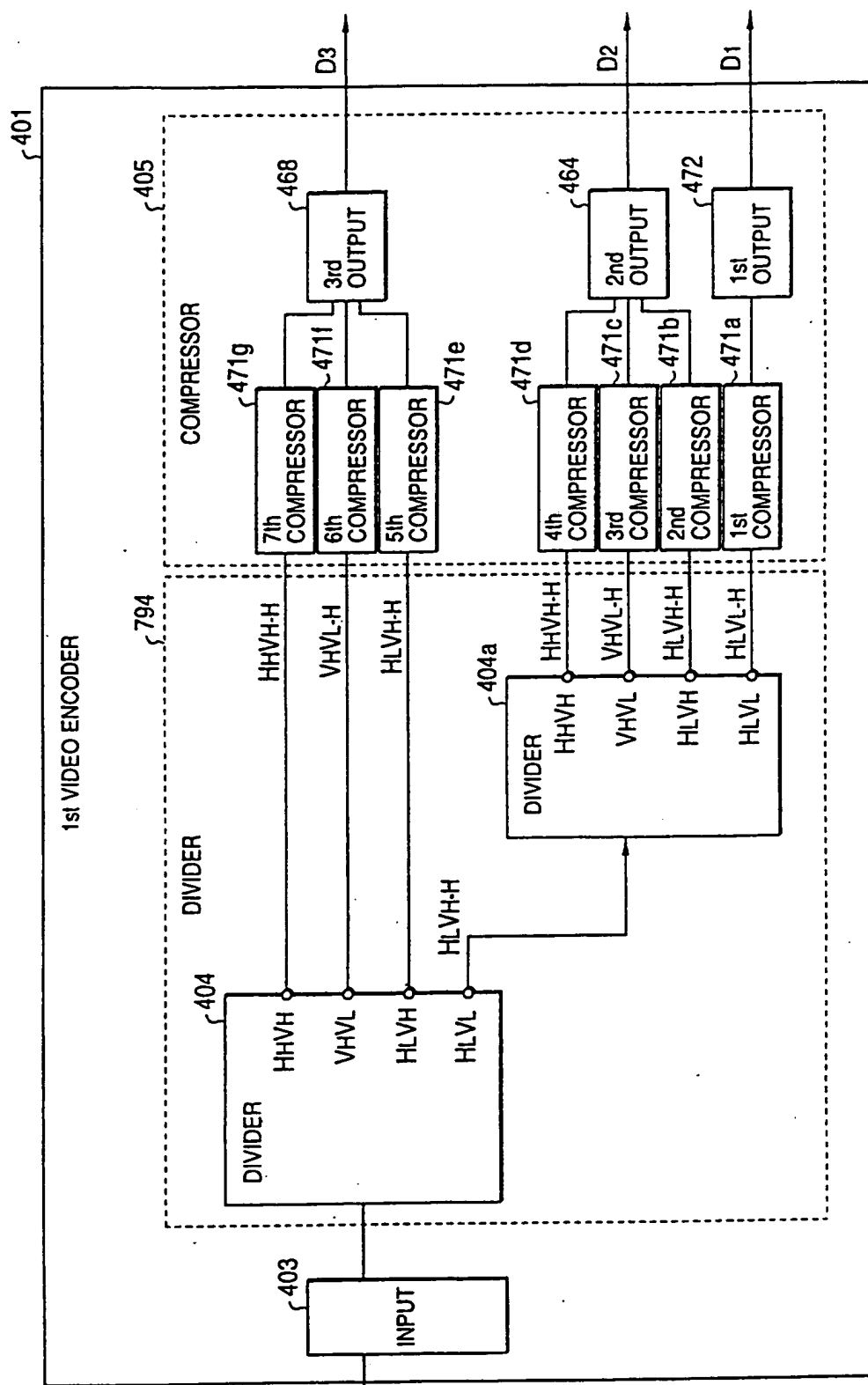


FIG. 70

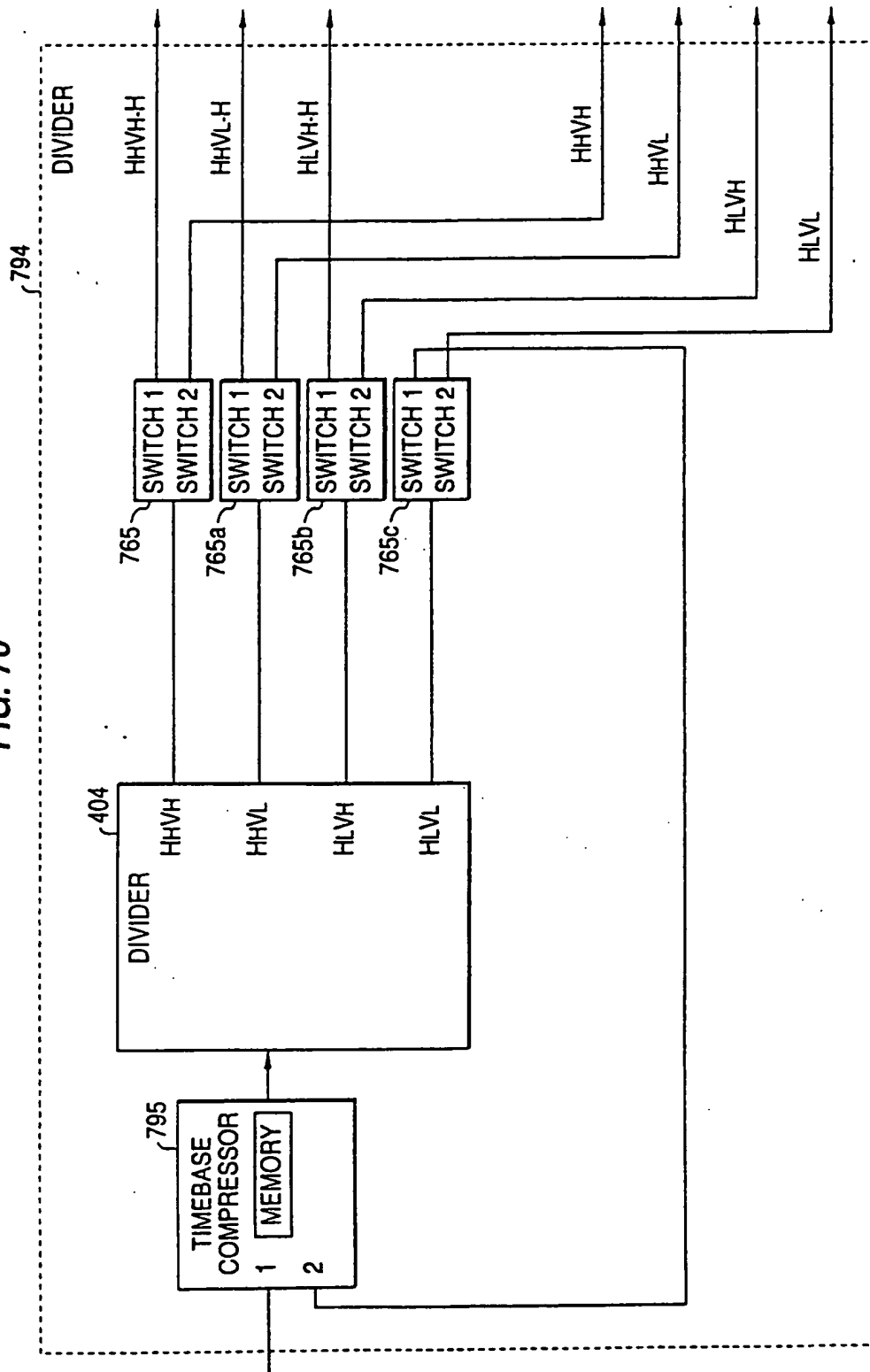


FIG. 71

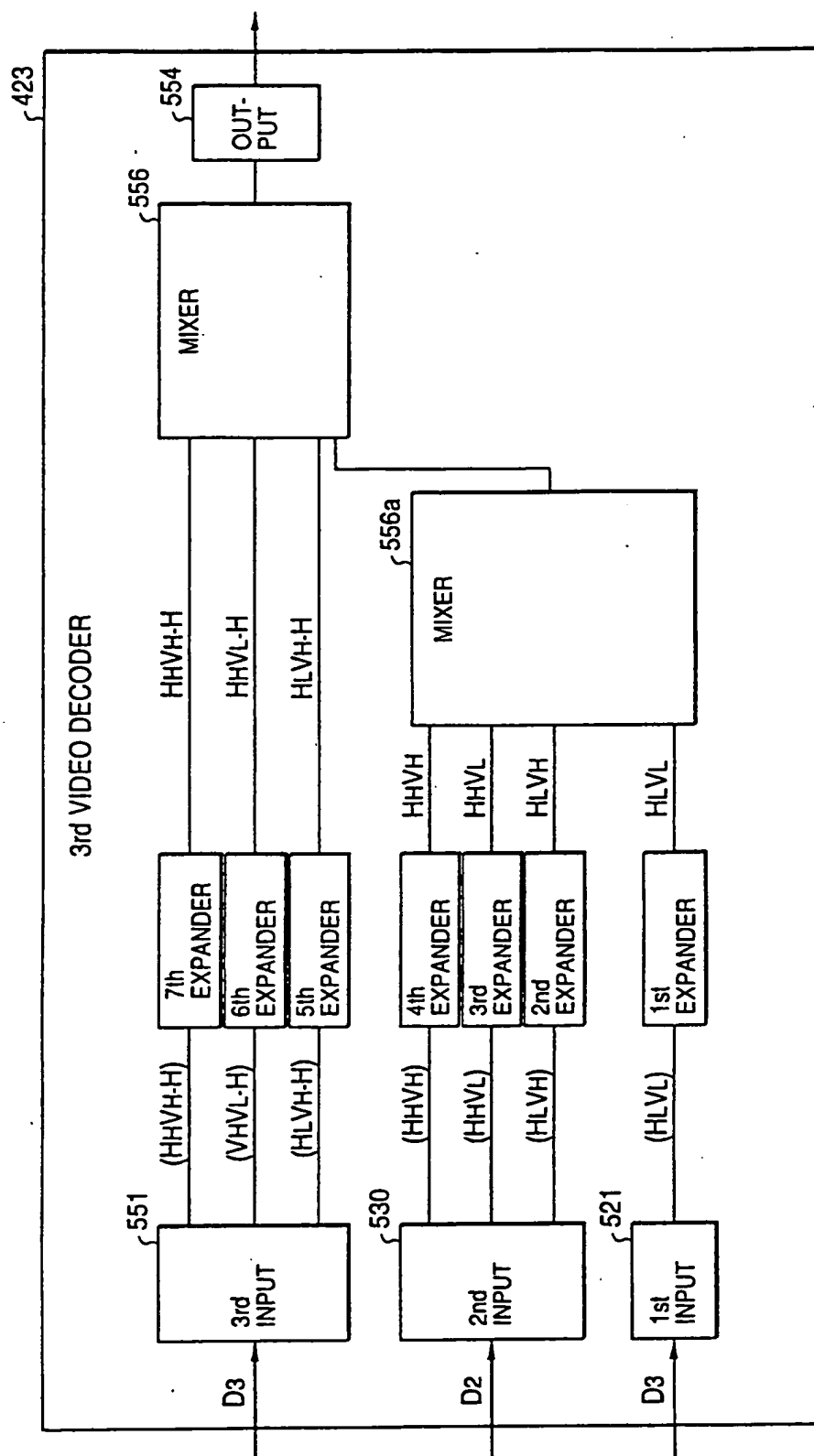


FIG. 72

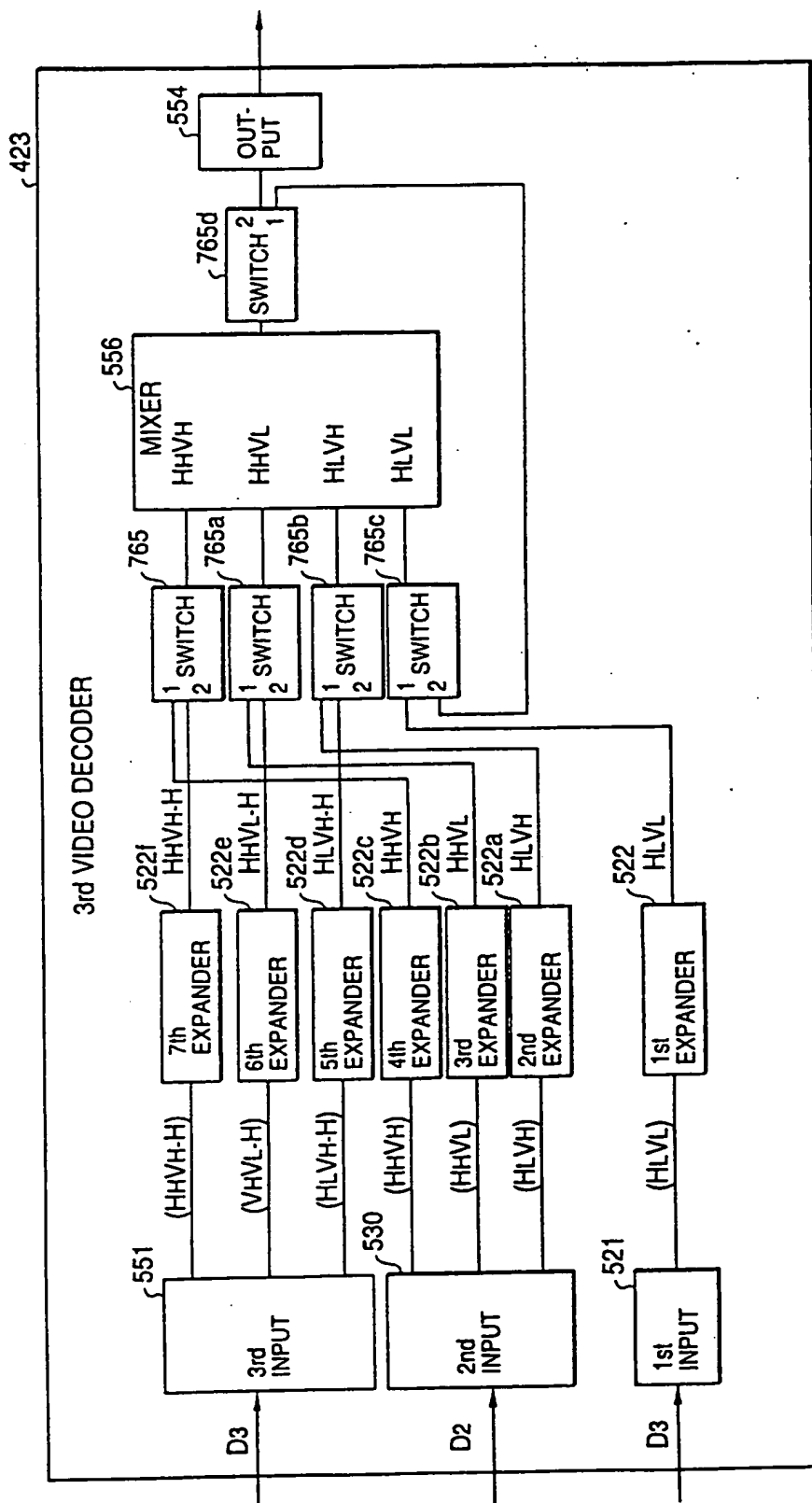


FIG. 73

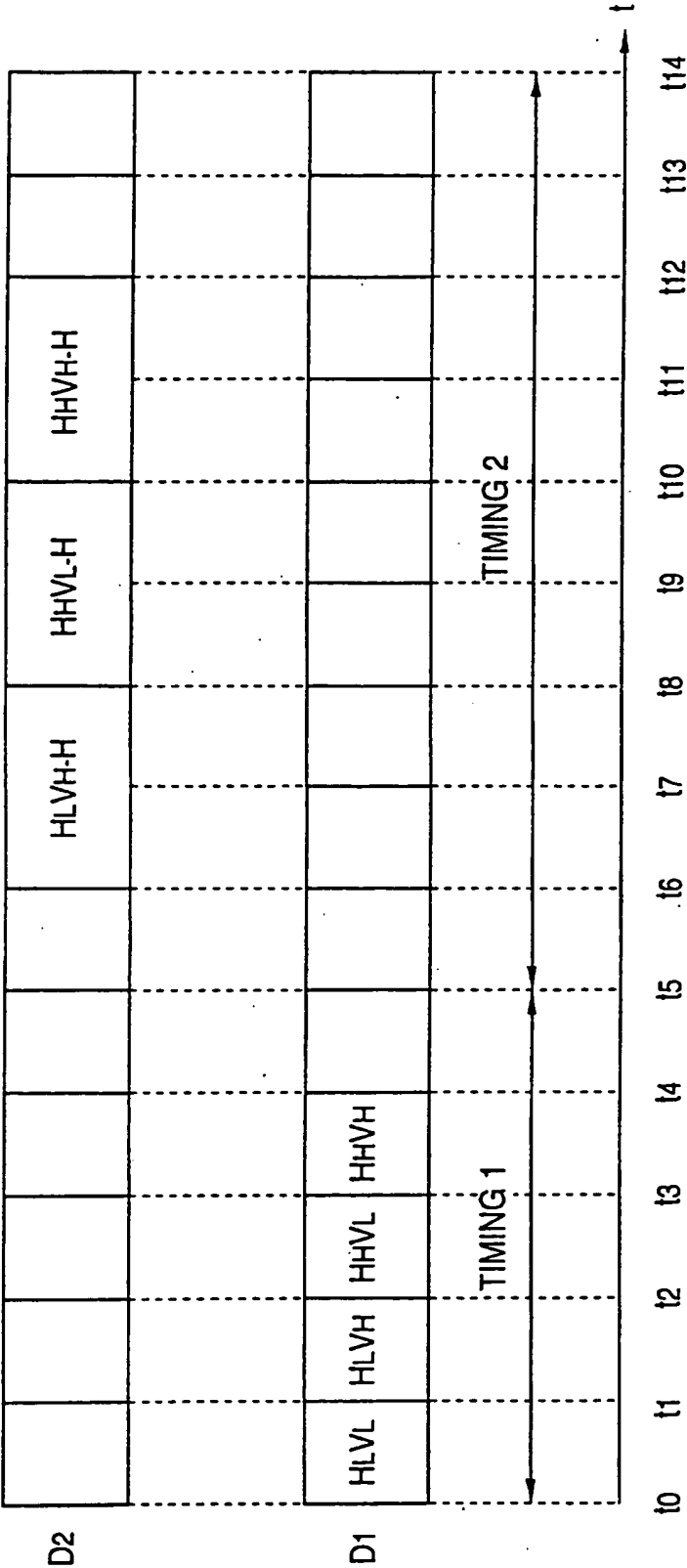


FIG. 74(a)

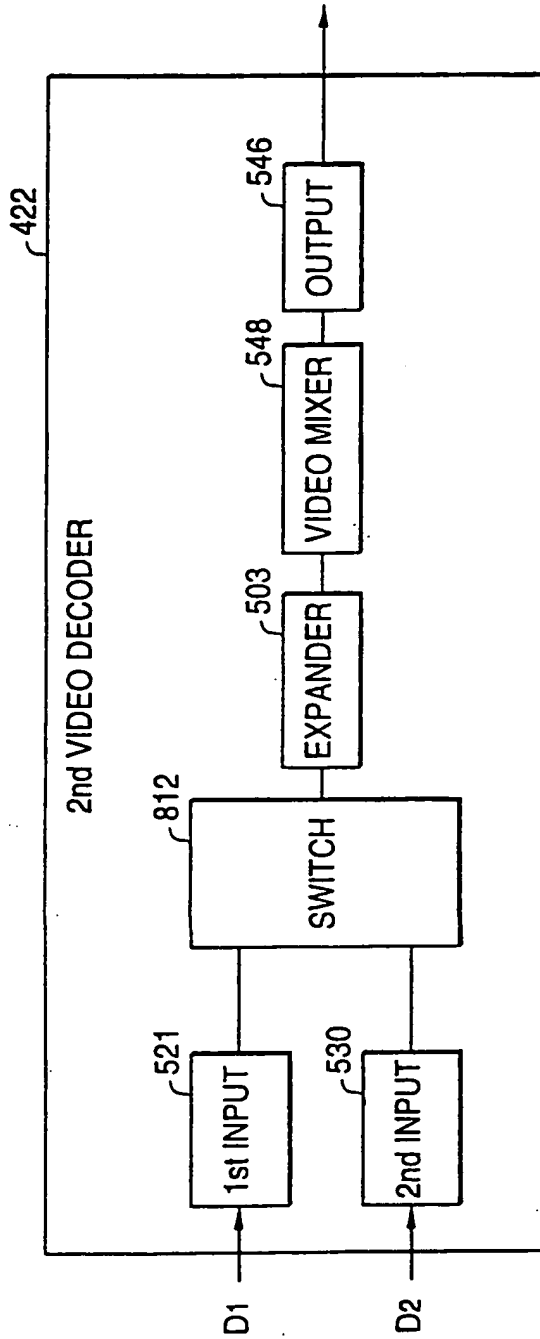


FIG. 74(b)

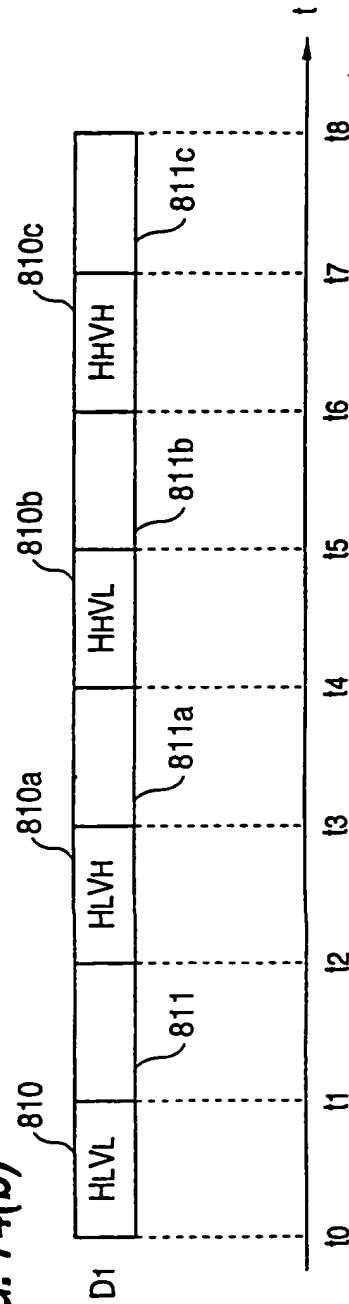


FIG. 75

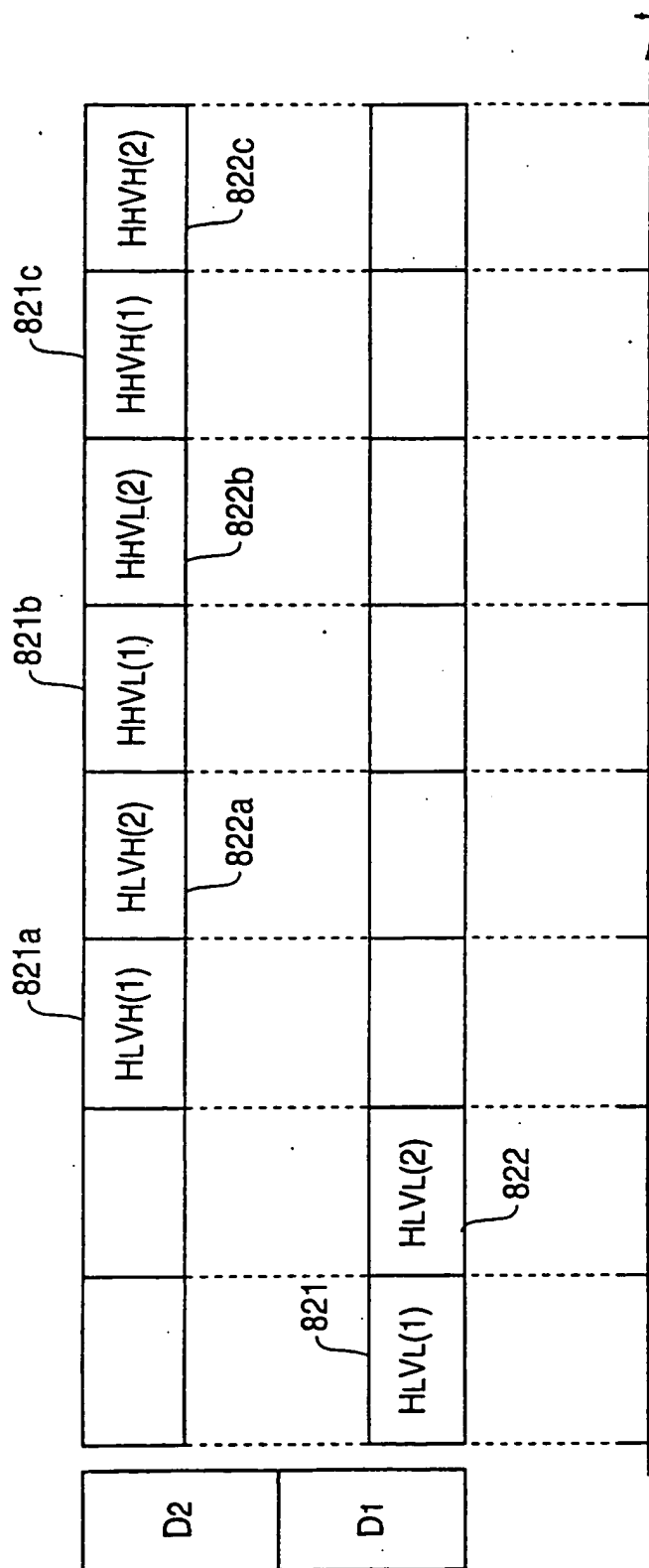


FIG. 76

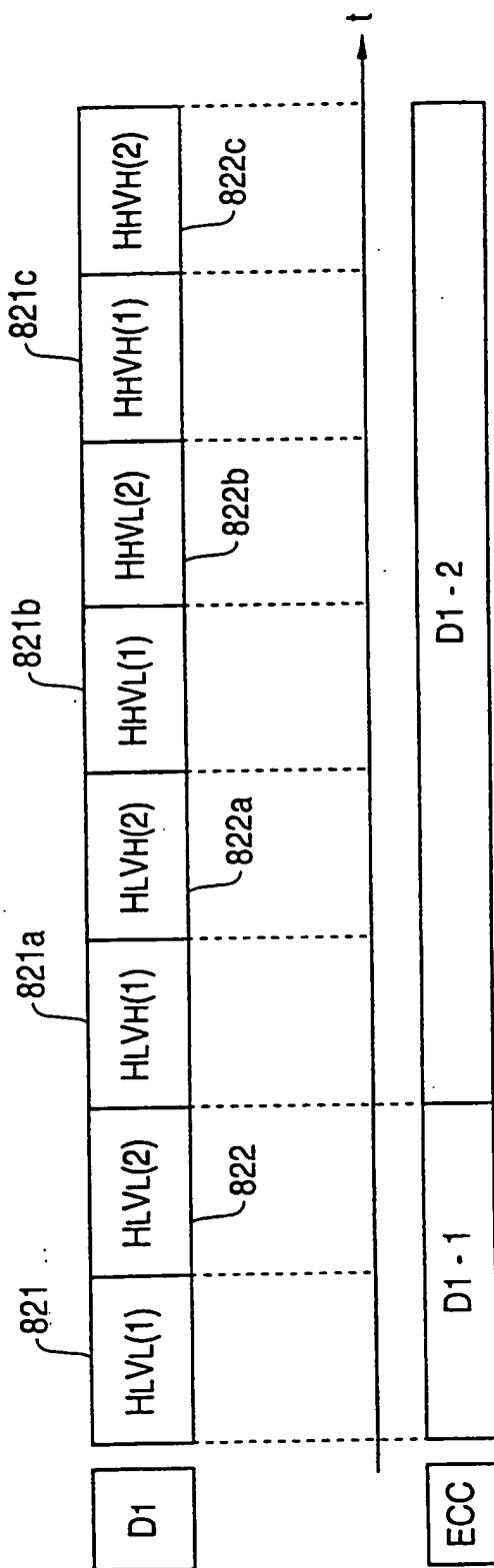


FIG. 77

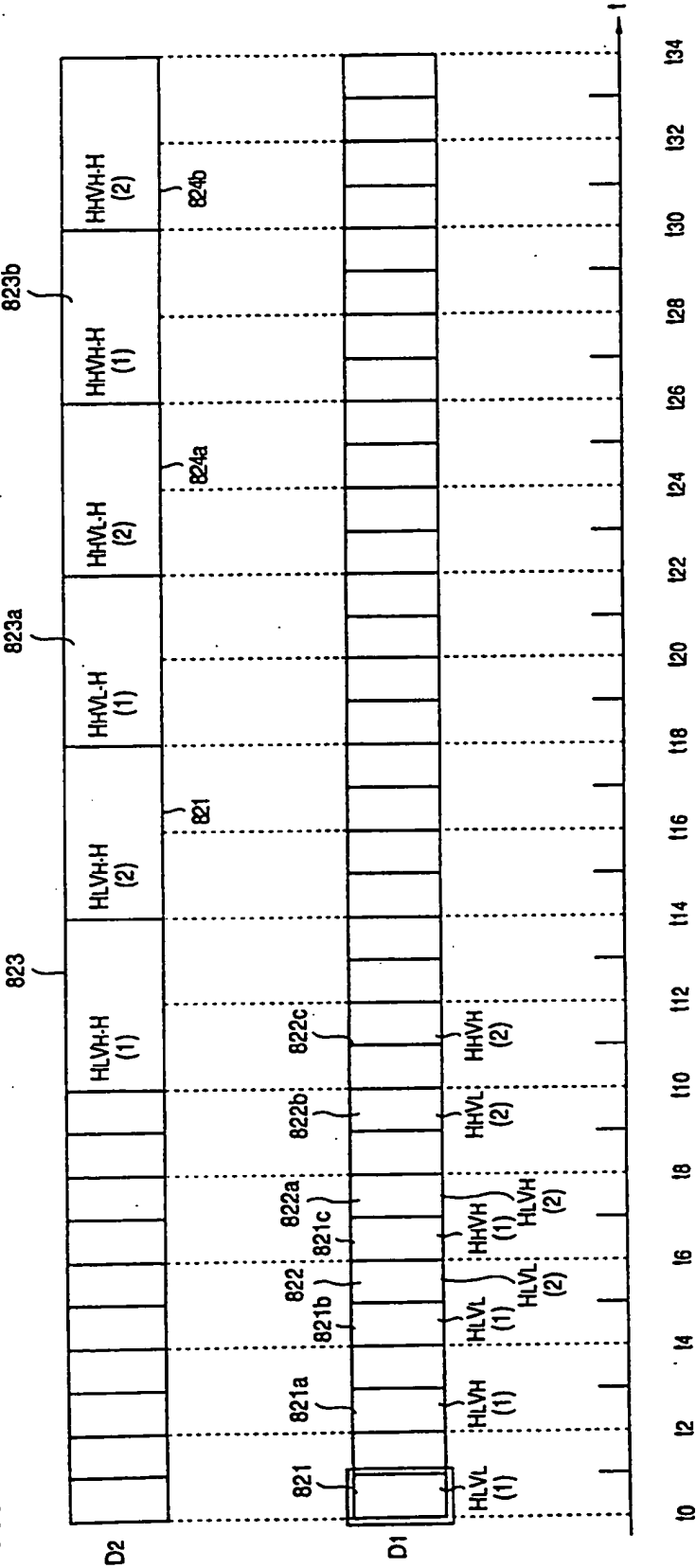


FIG. 78

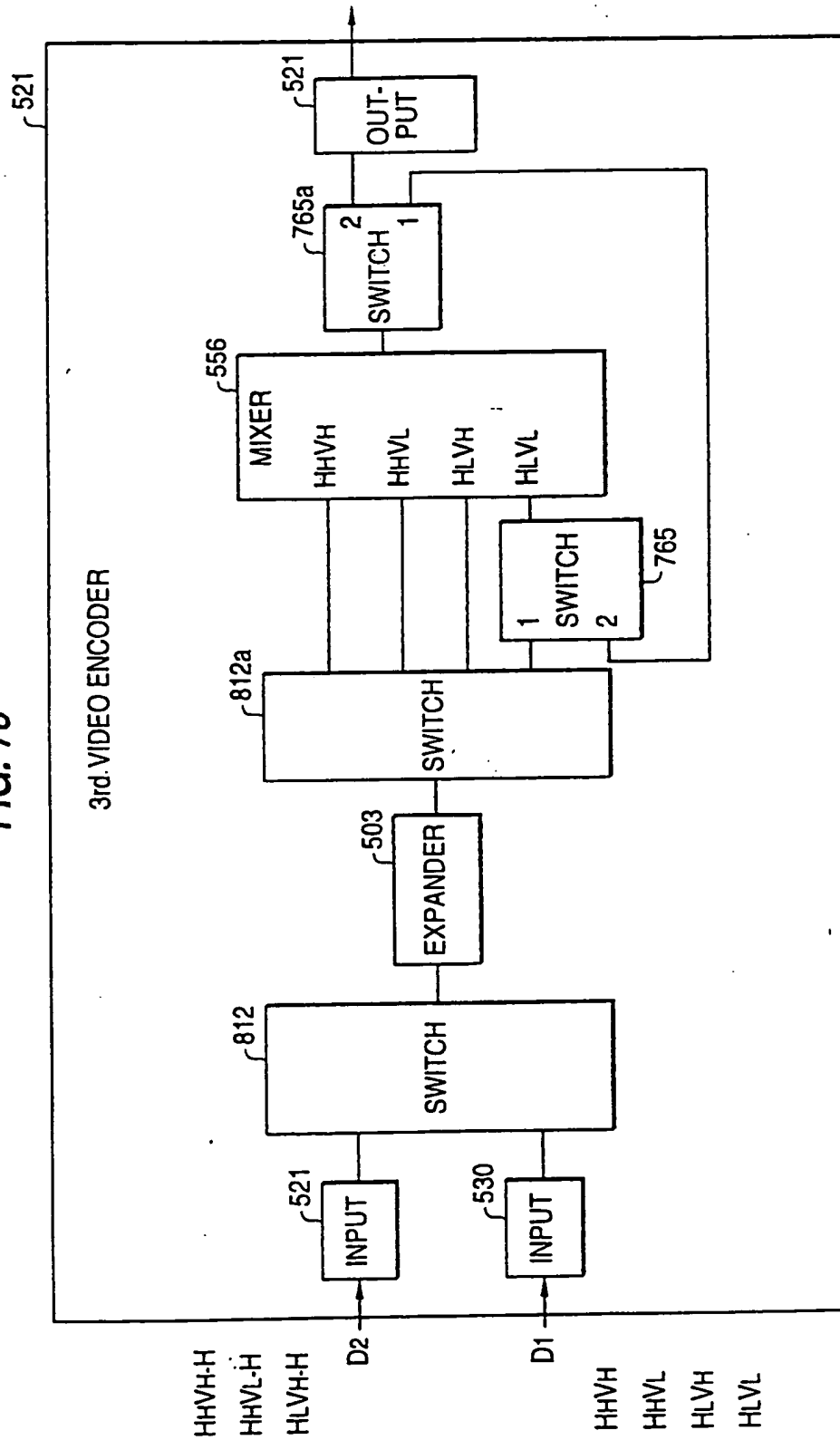


FIG. 79

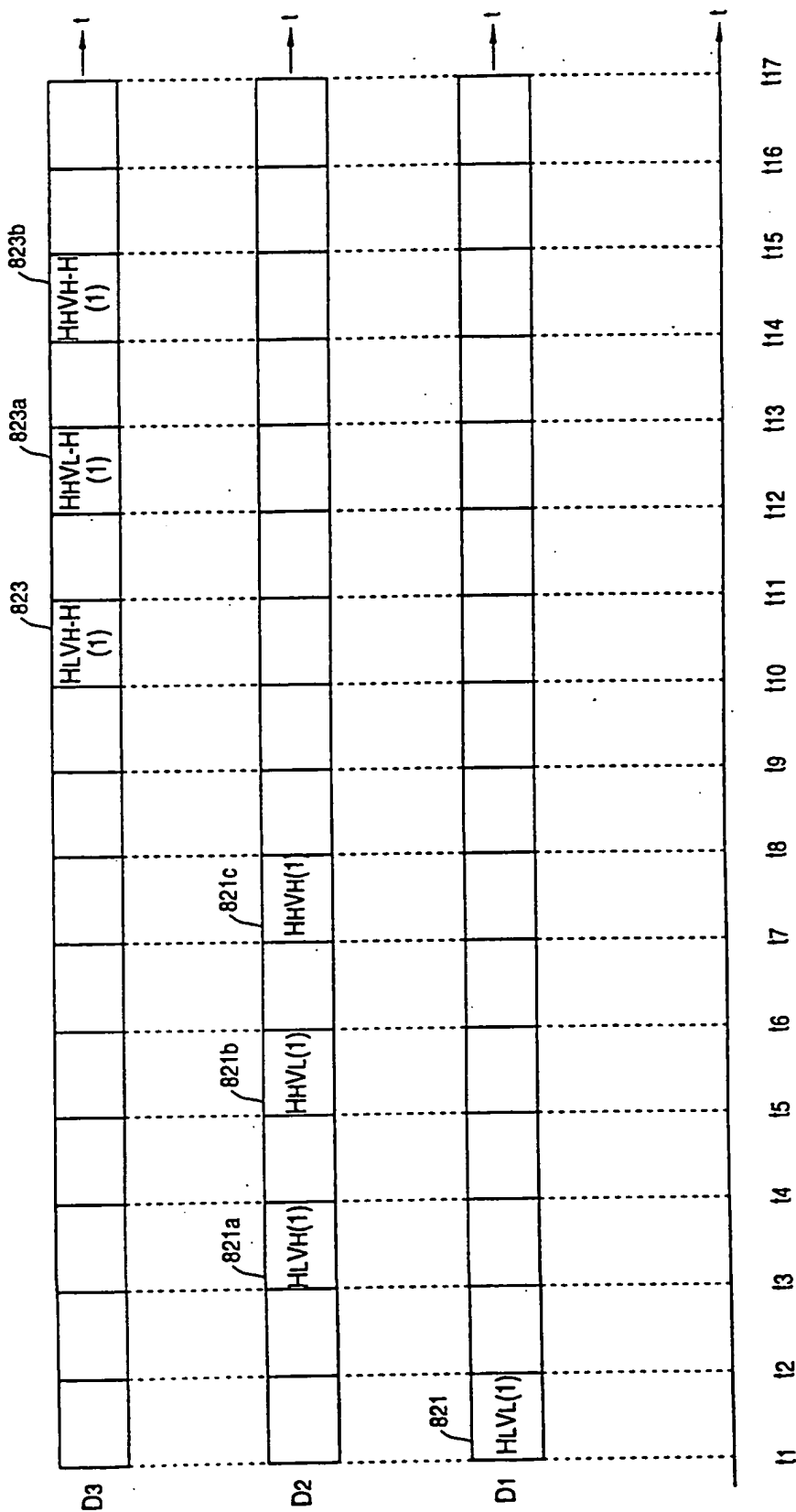


FIG. 80

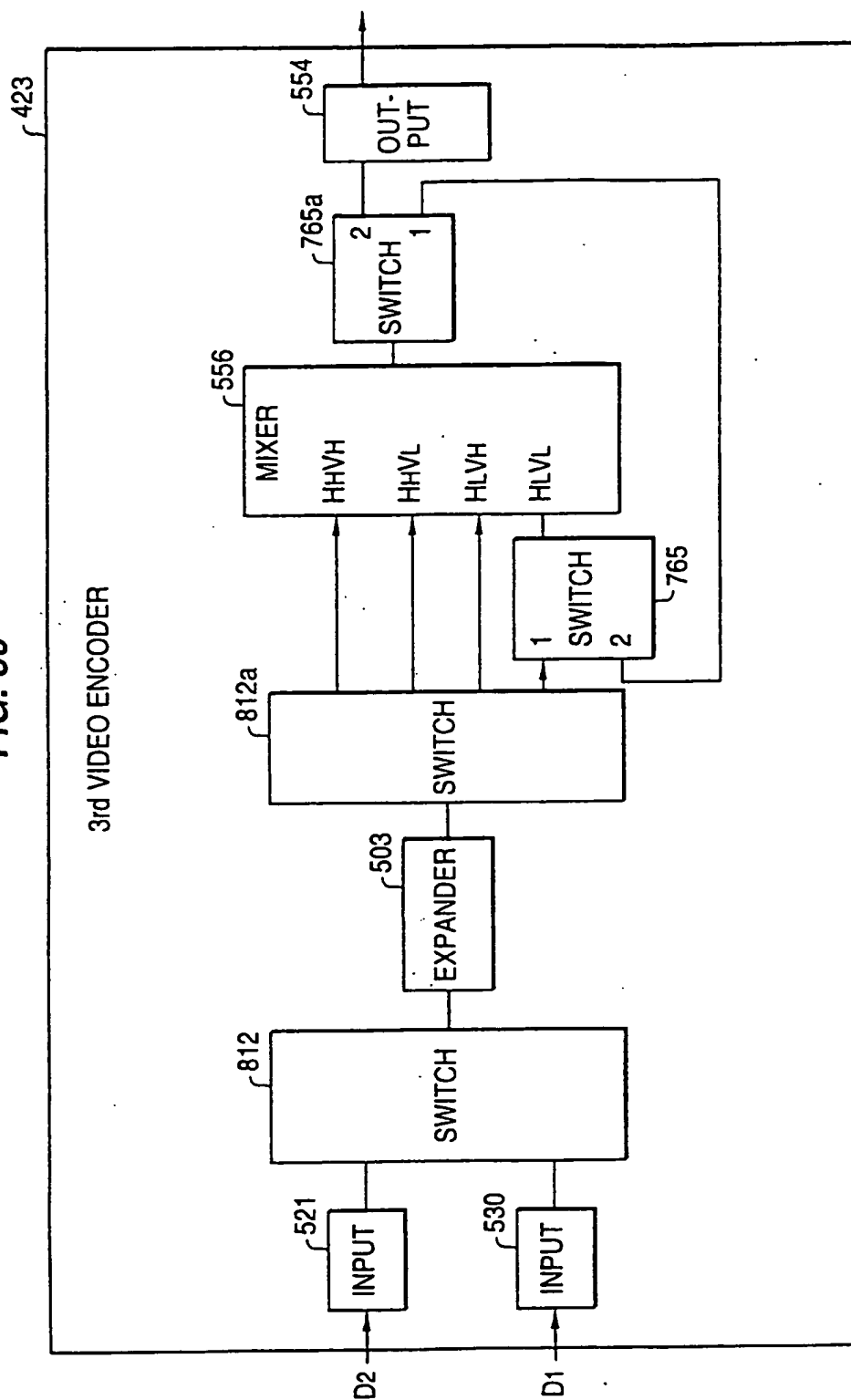


FIG. 81

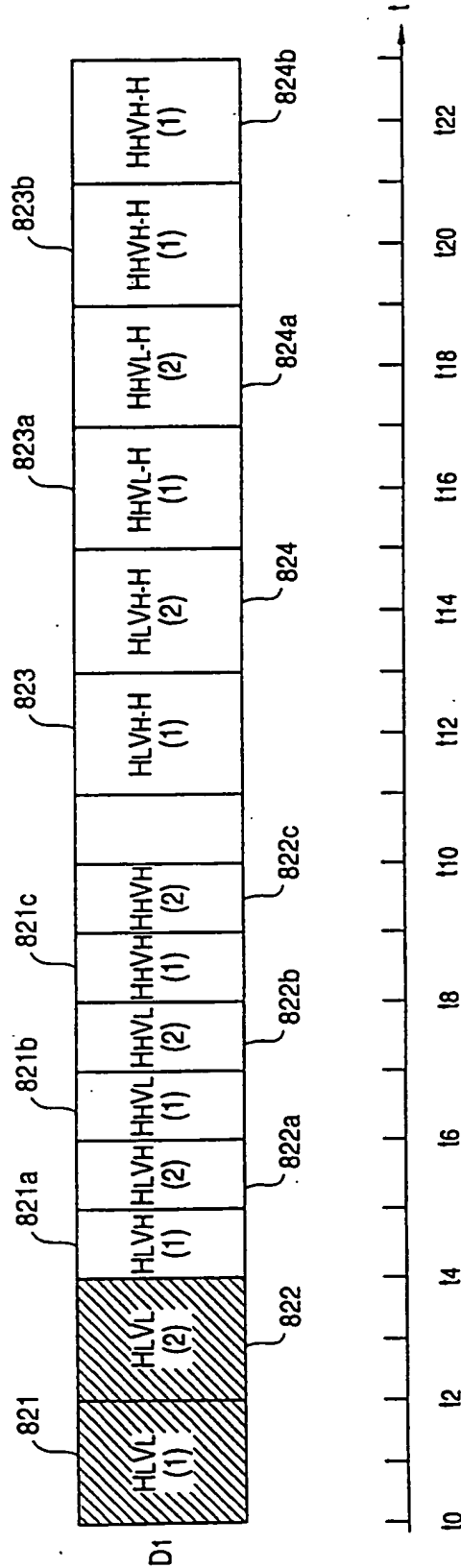


FIG. 82

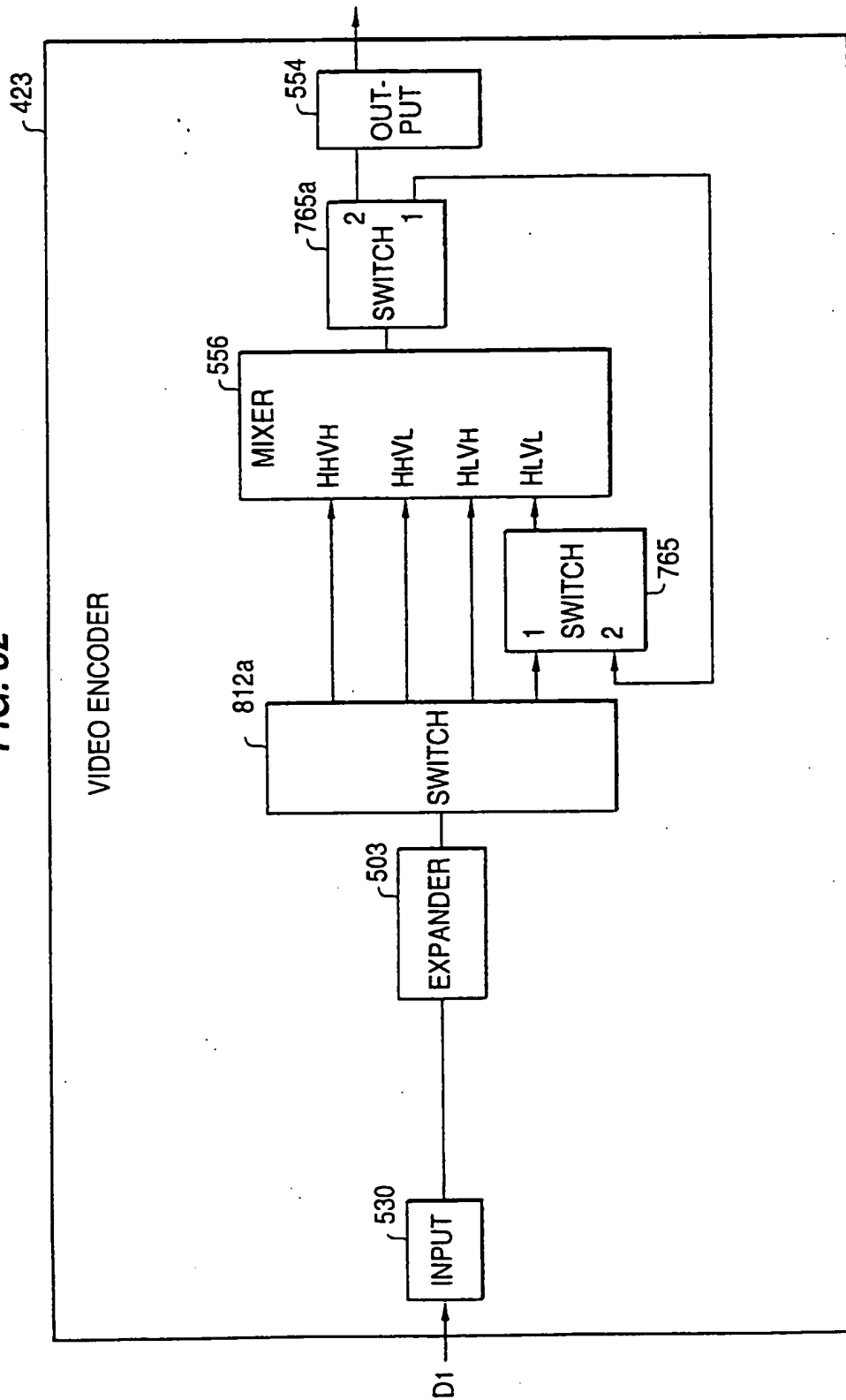


FIG. 83

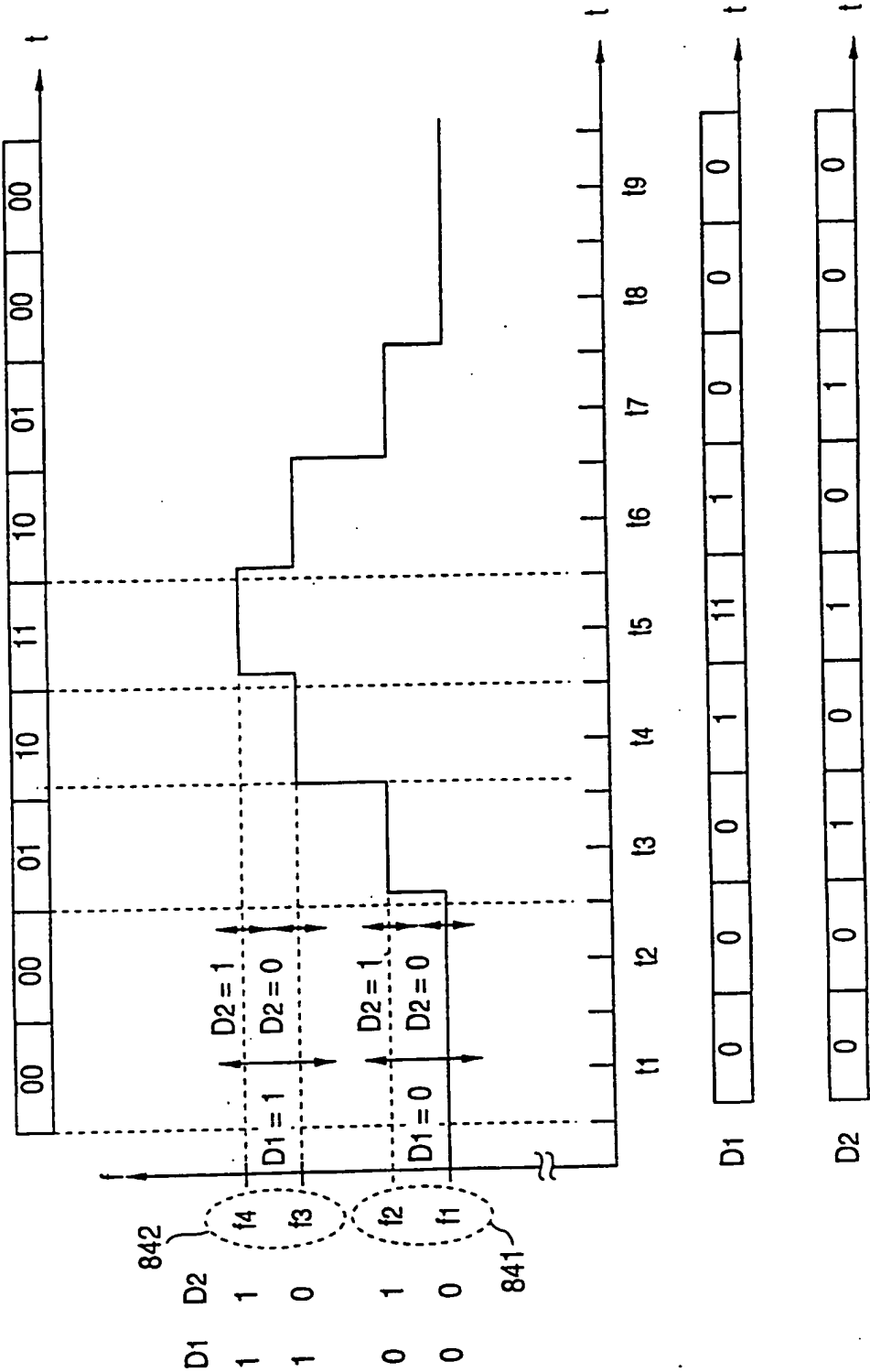


FIG. 84

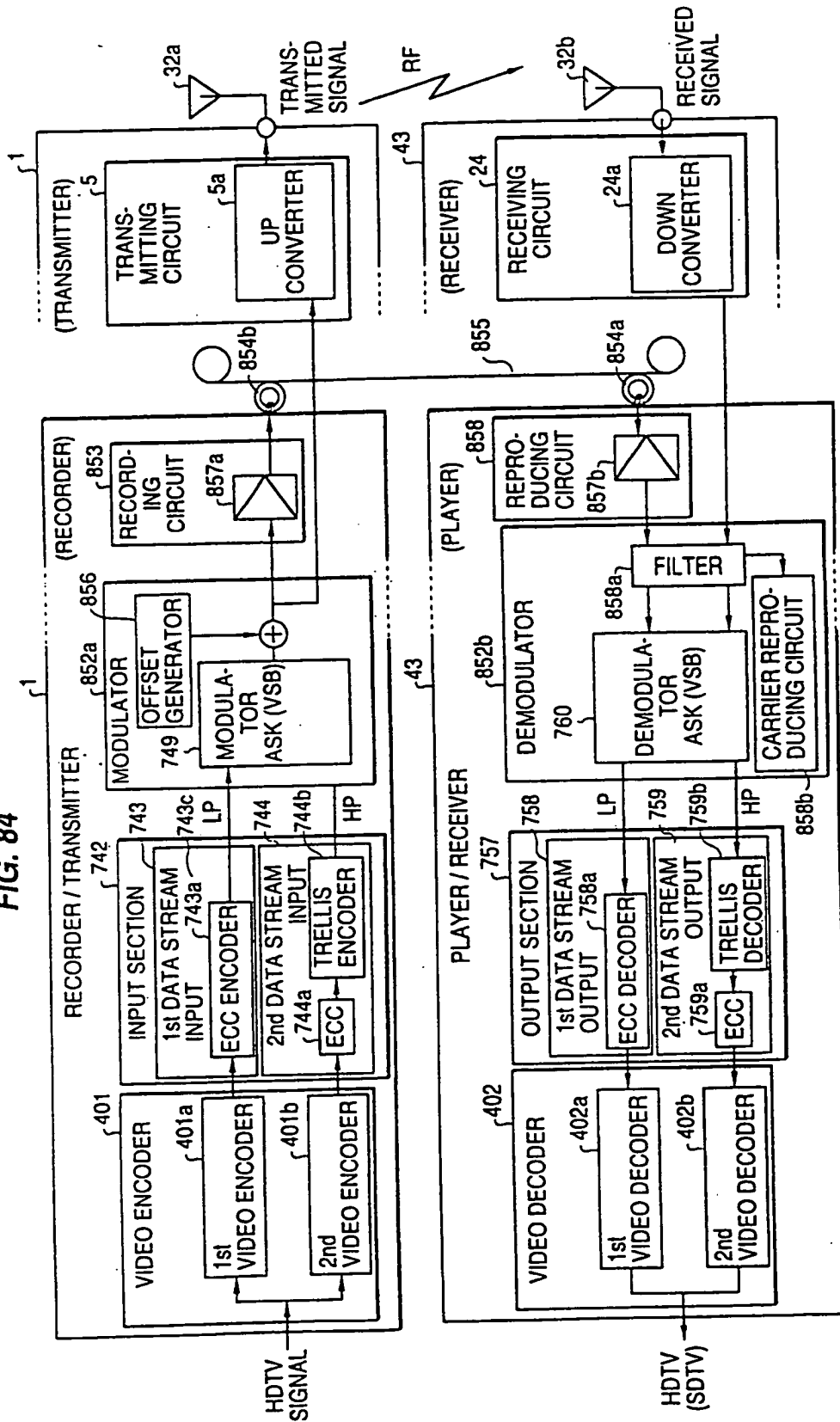


FIG. 85

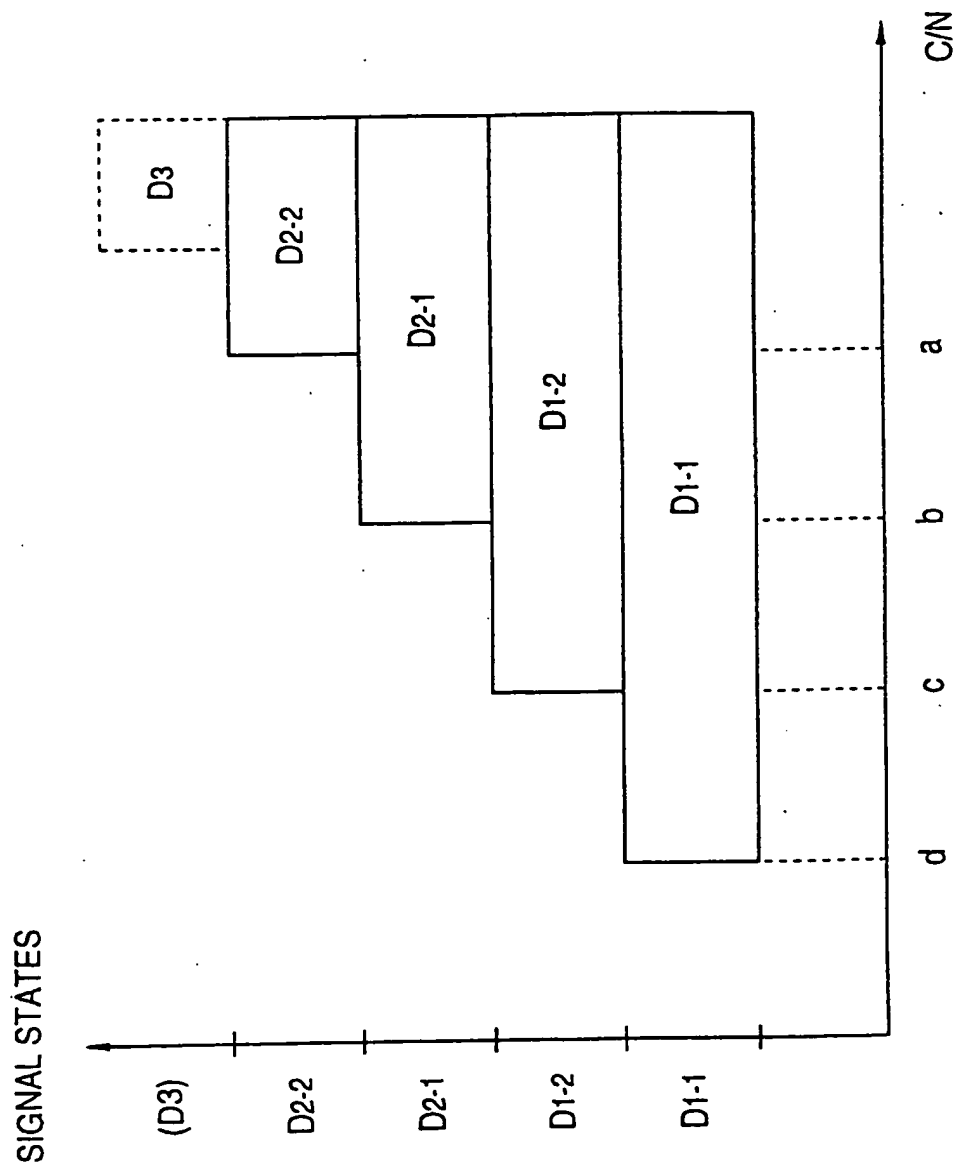


FIG. 86

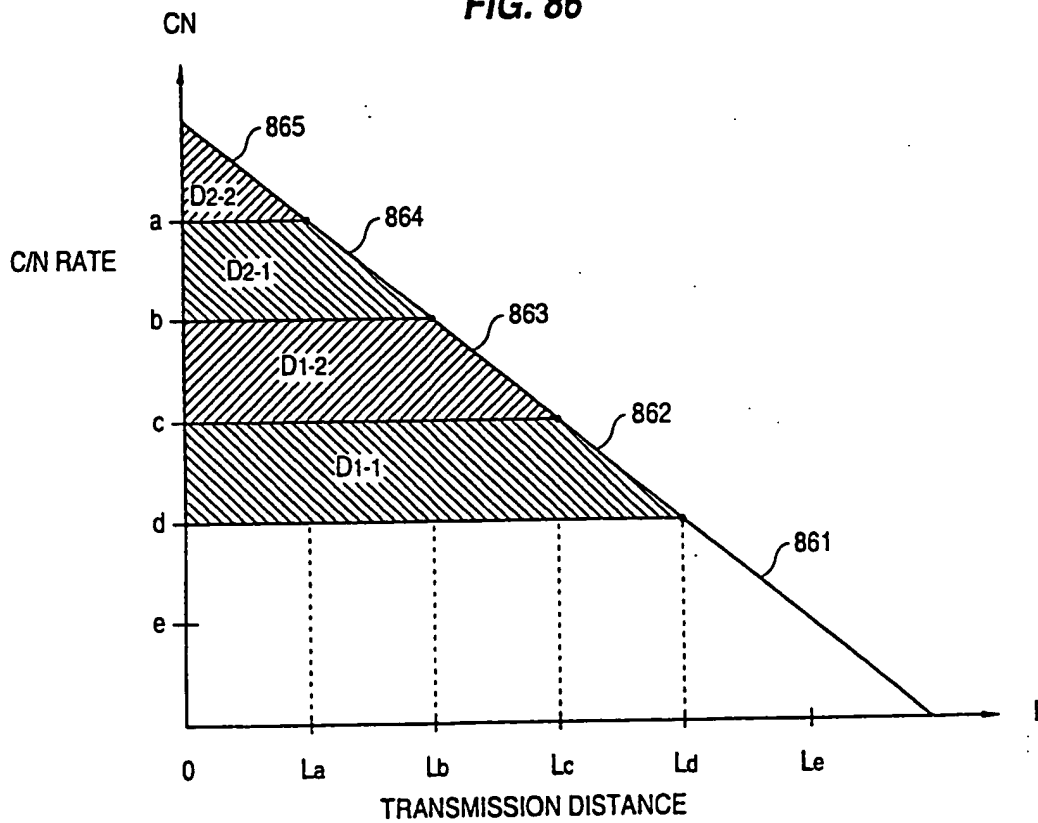


FIG. 87

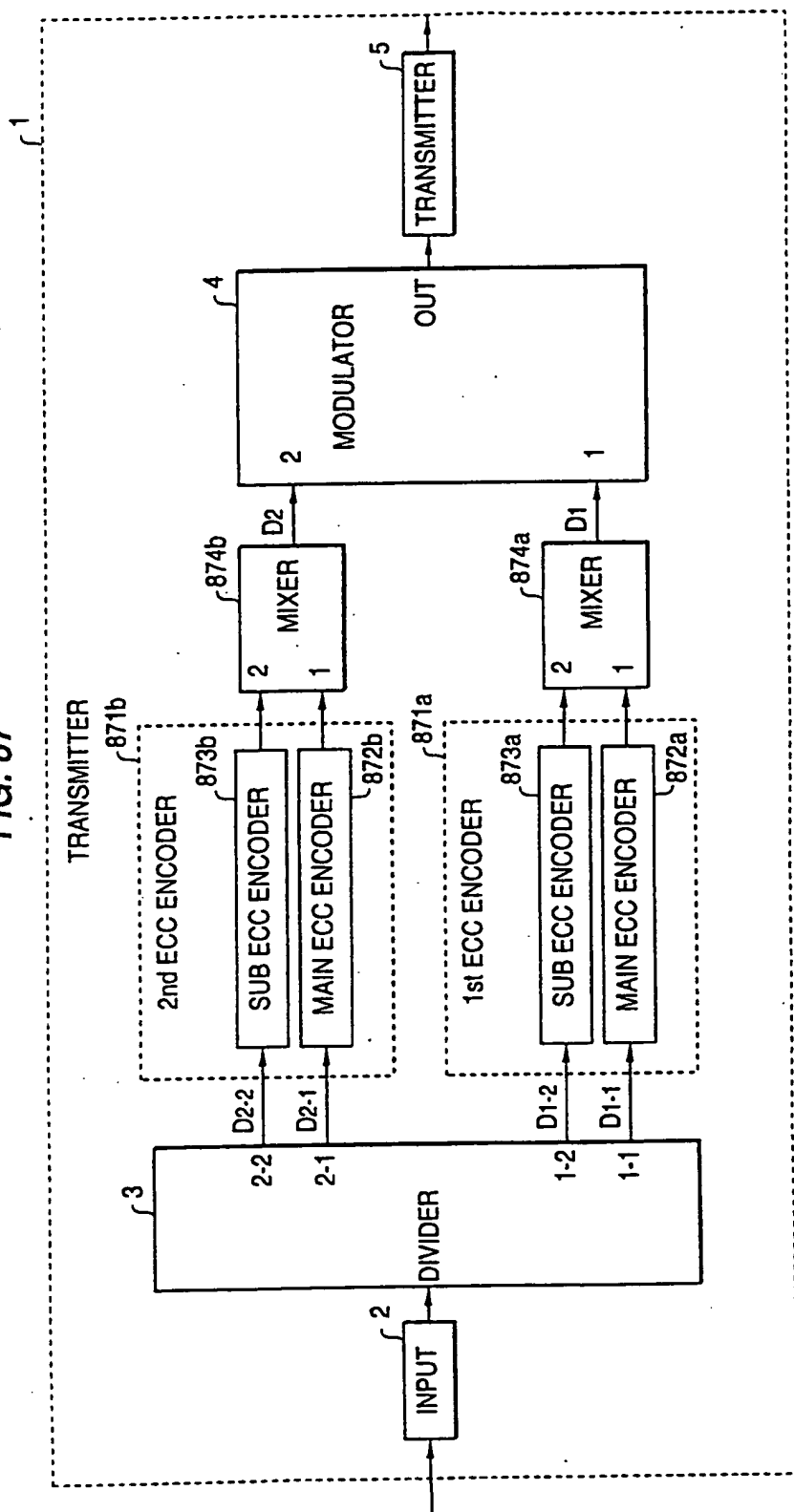


FIG. 88

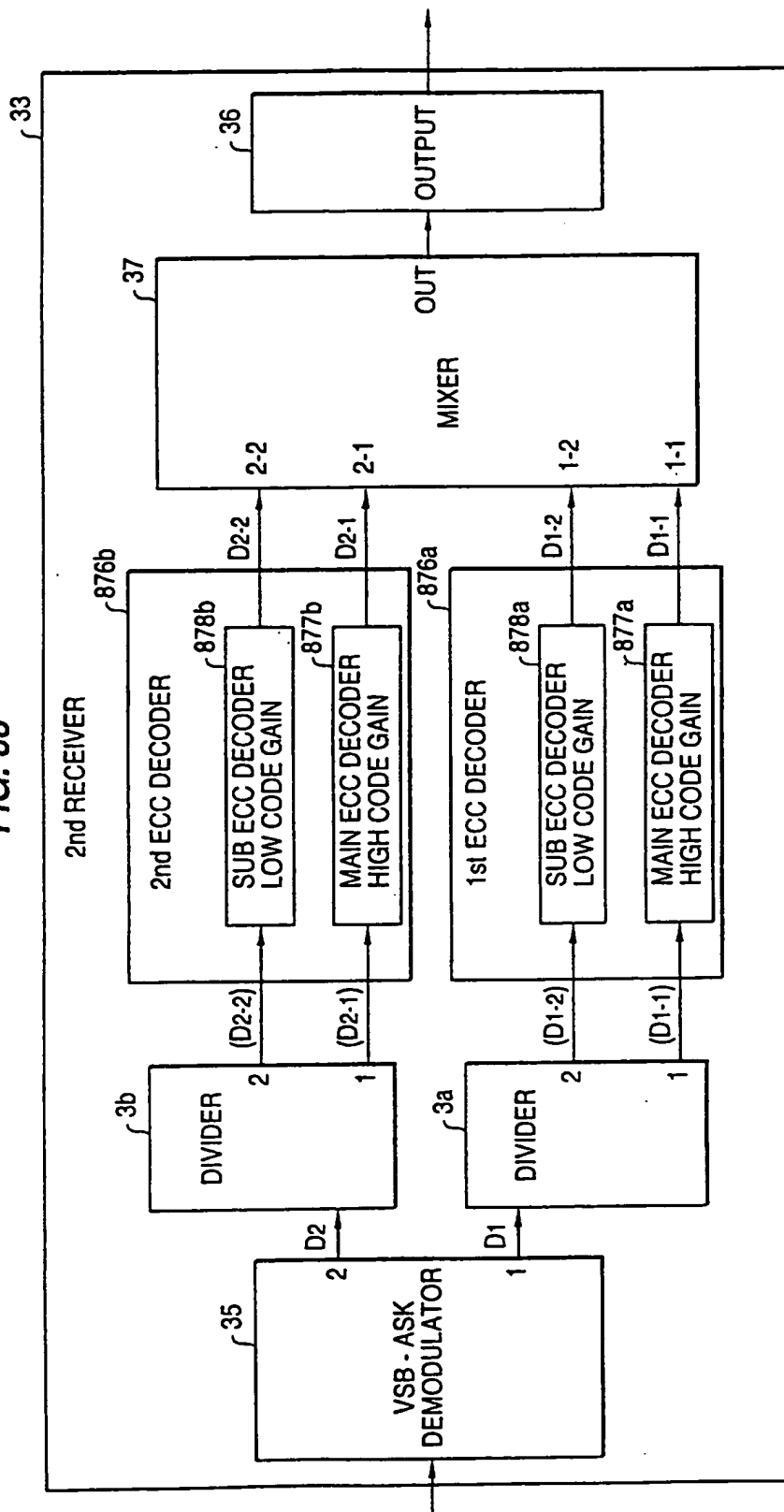


FIG. 89

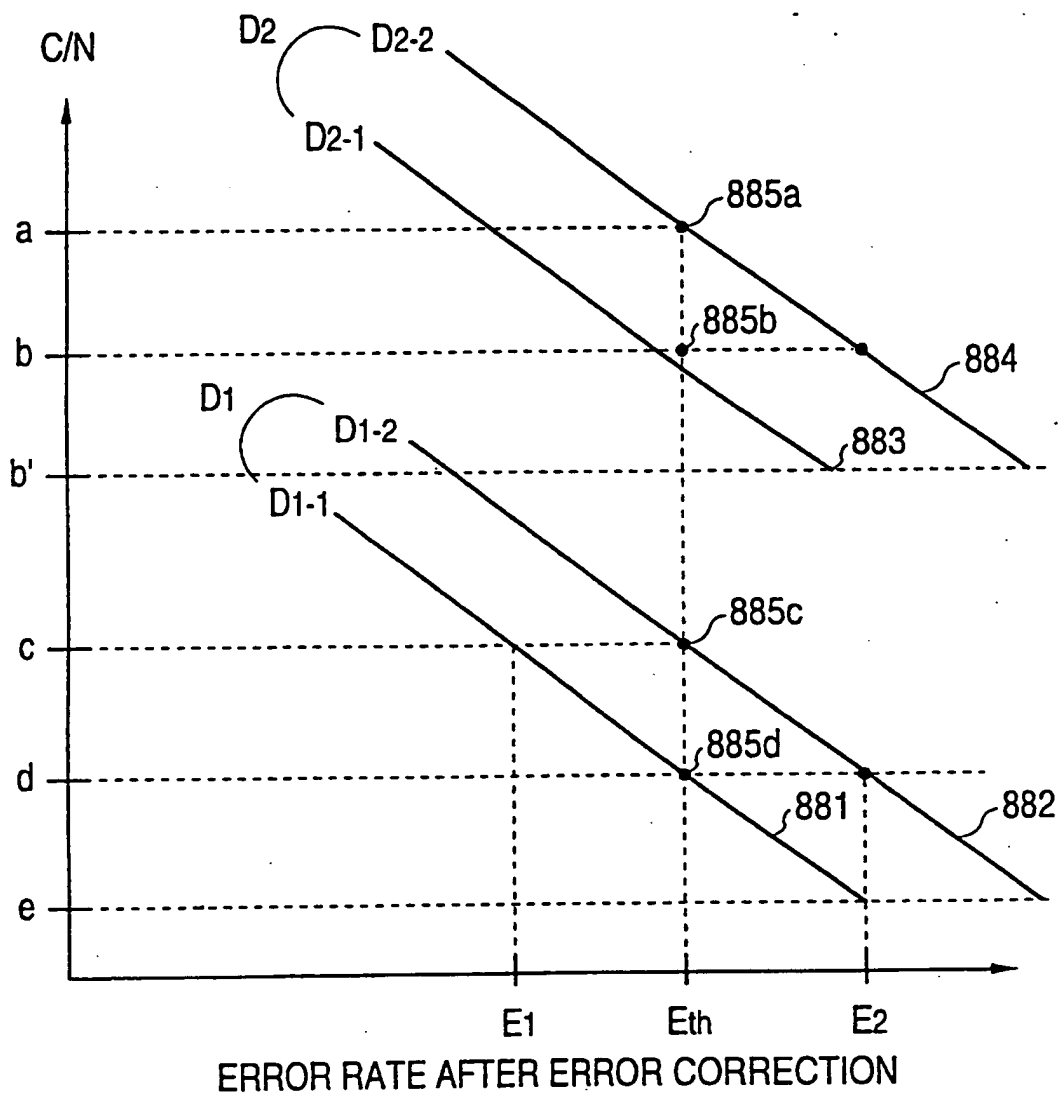


FIG. 90

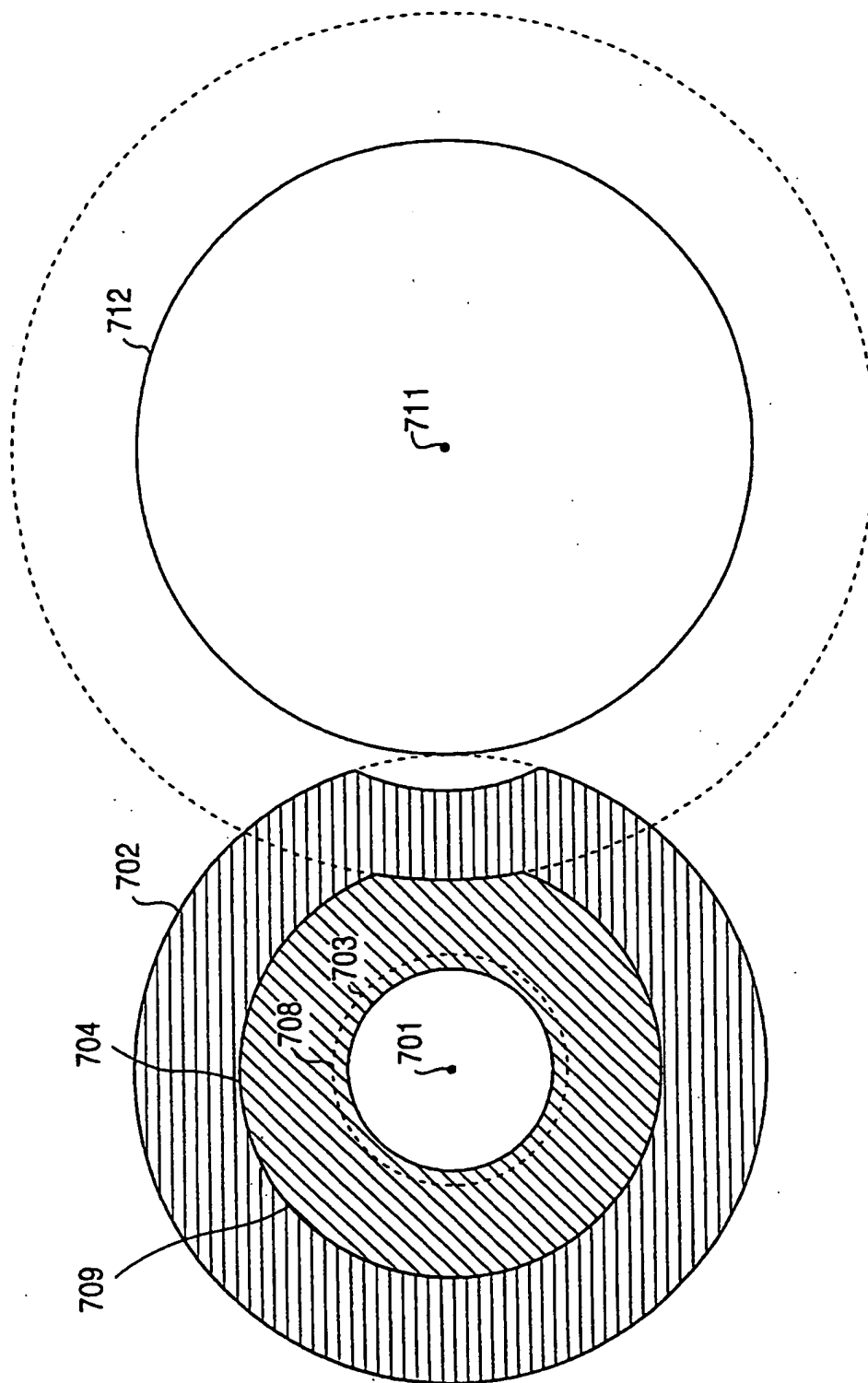


FIG. 91

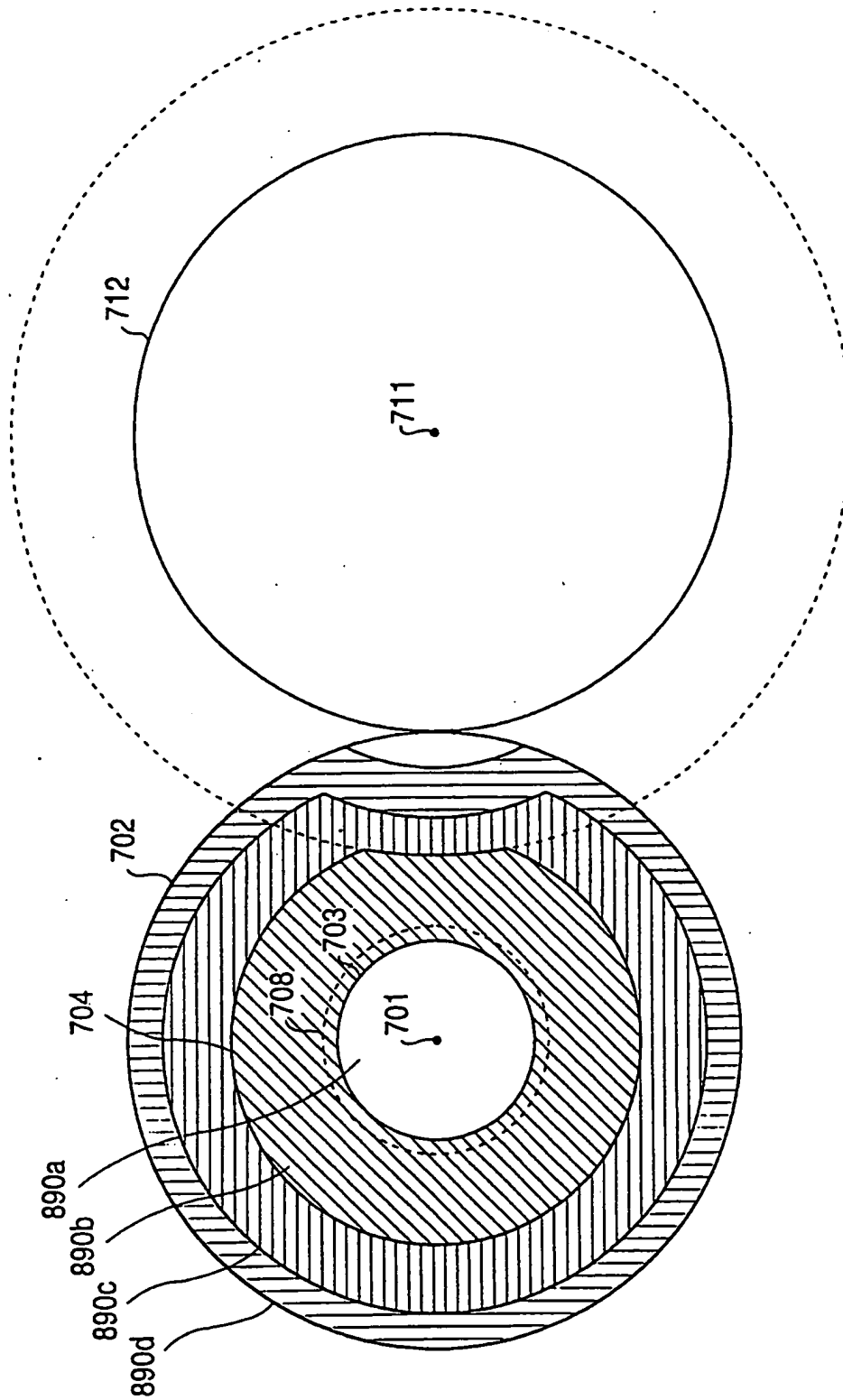


FIG. 92

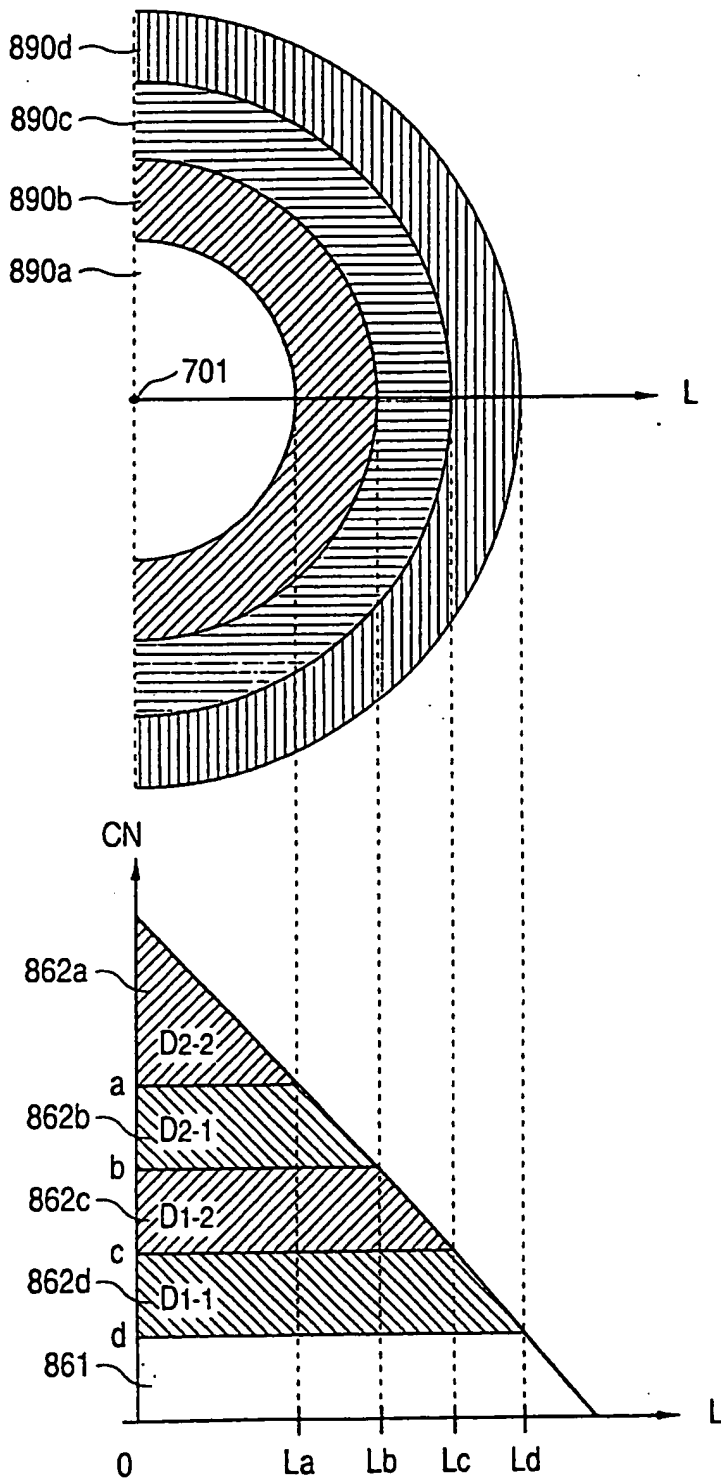


FIG. 93

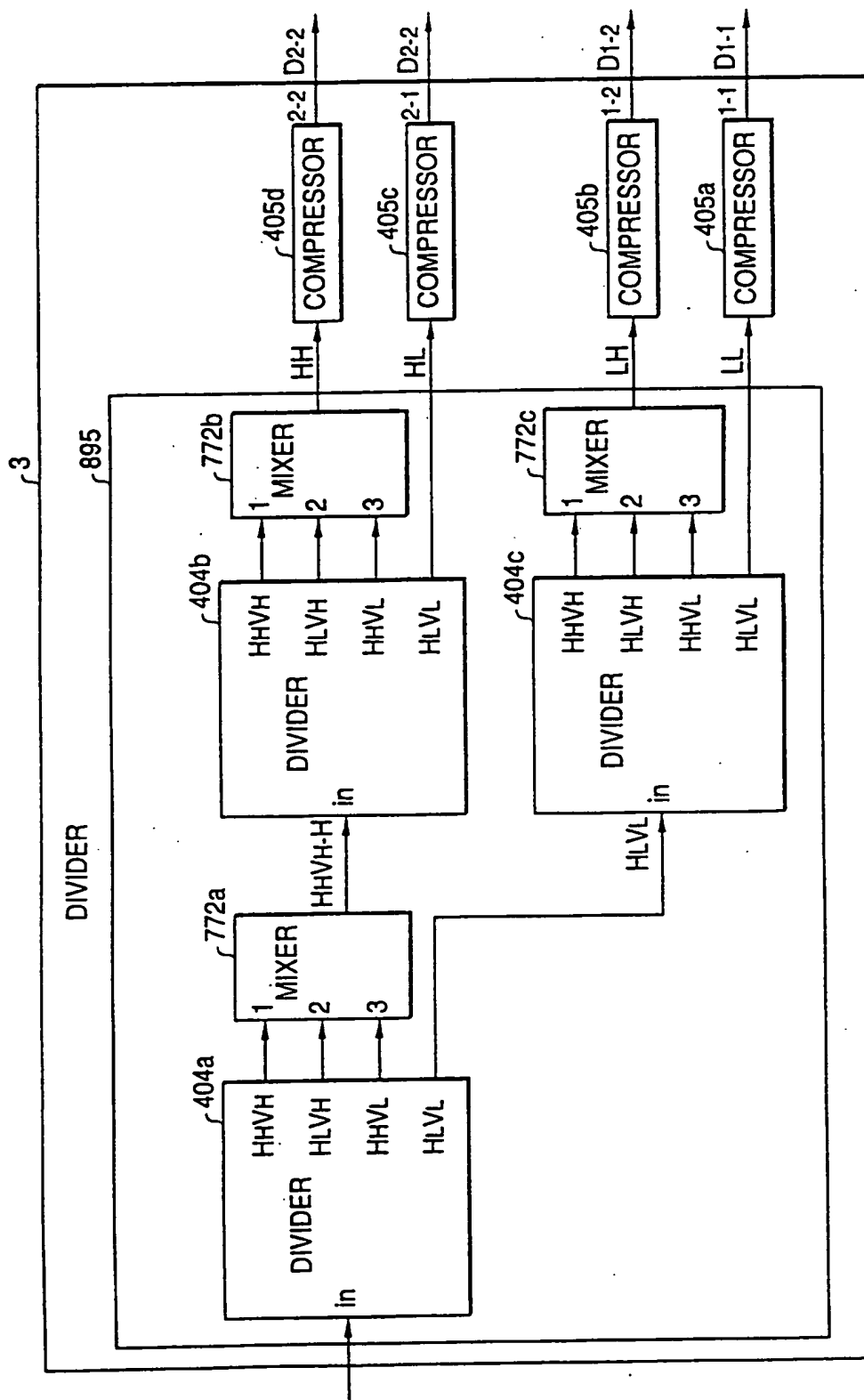


FIG. 94

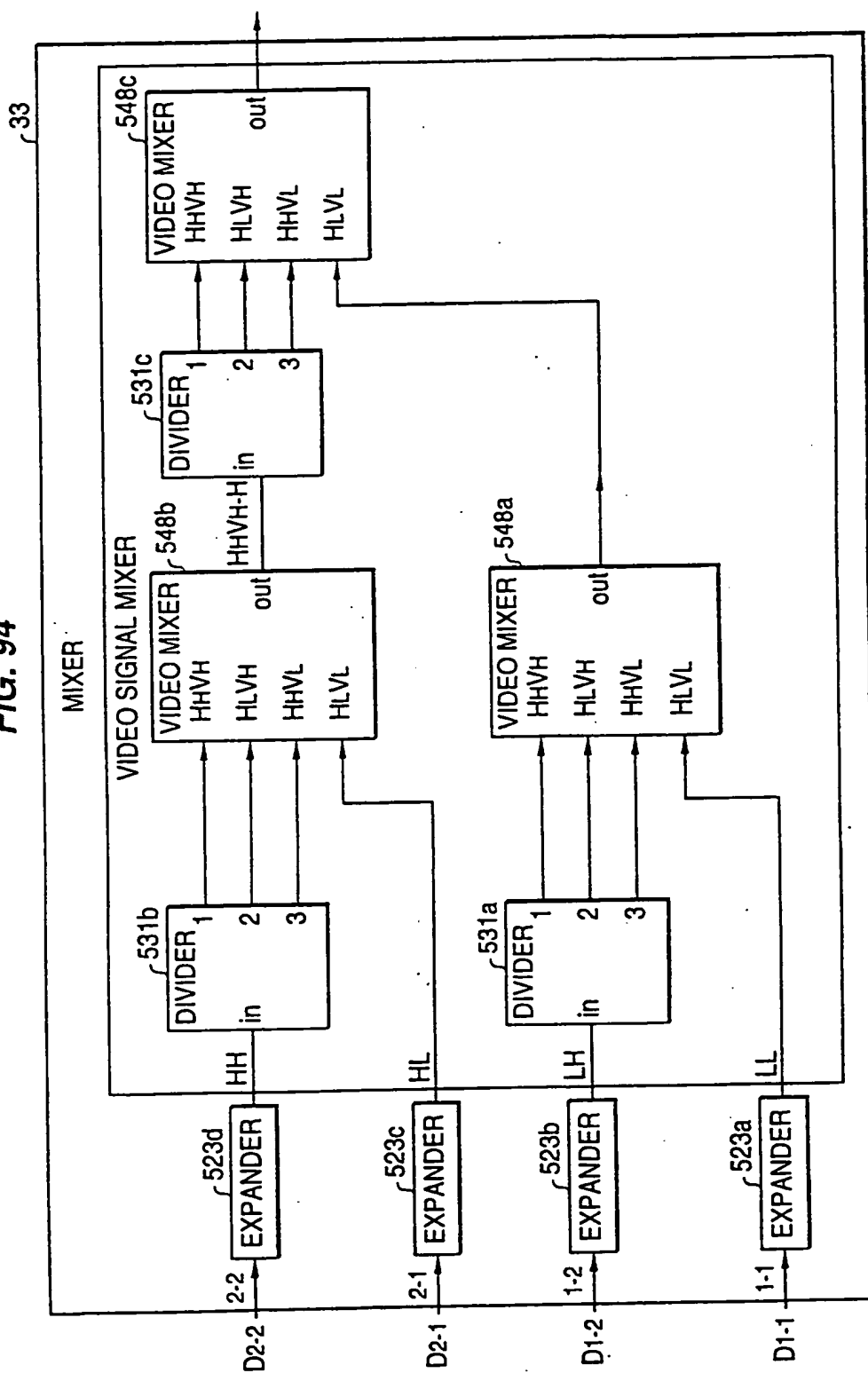


FIG. 95

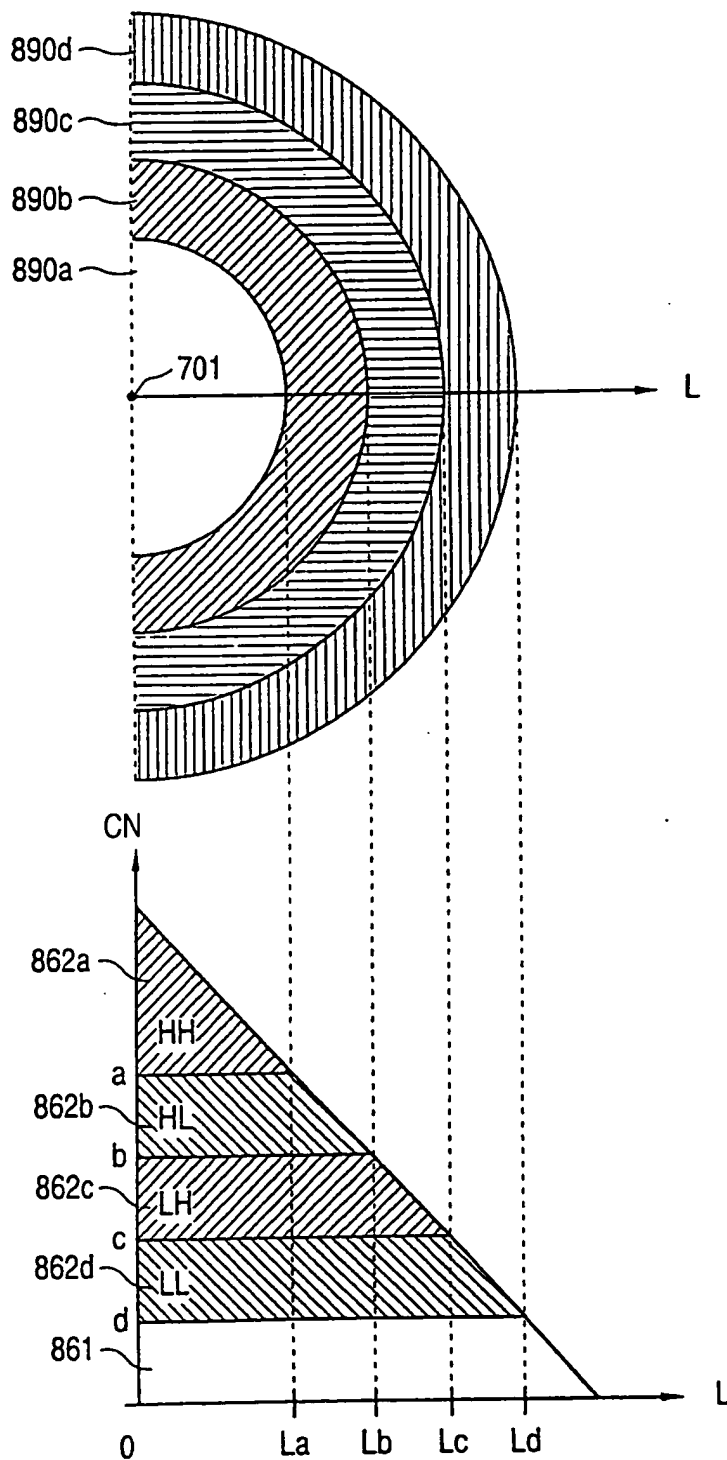


FIG. 96

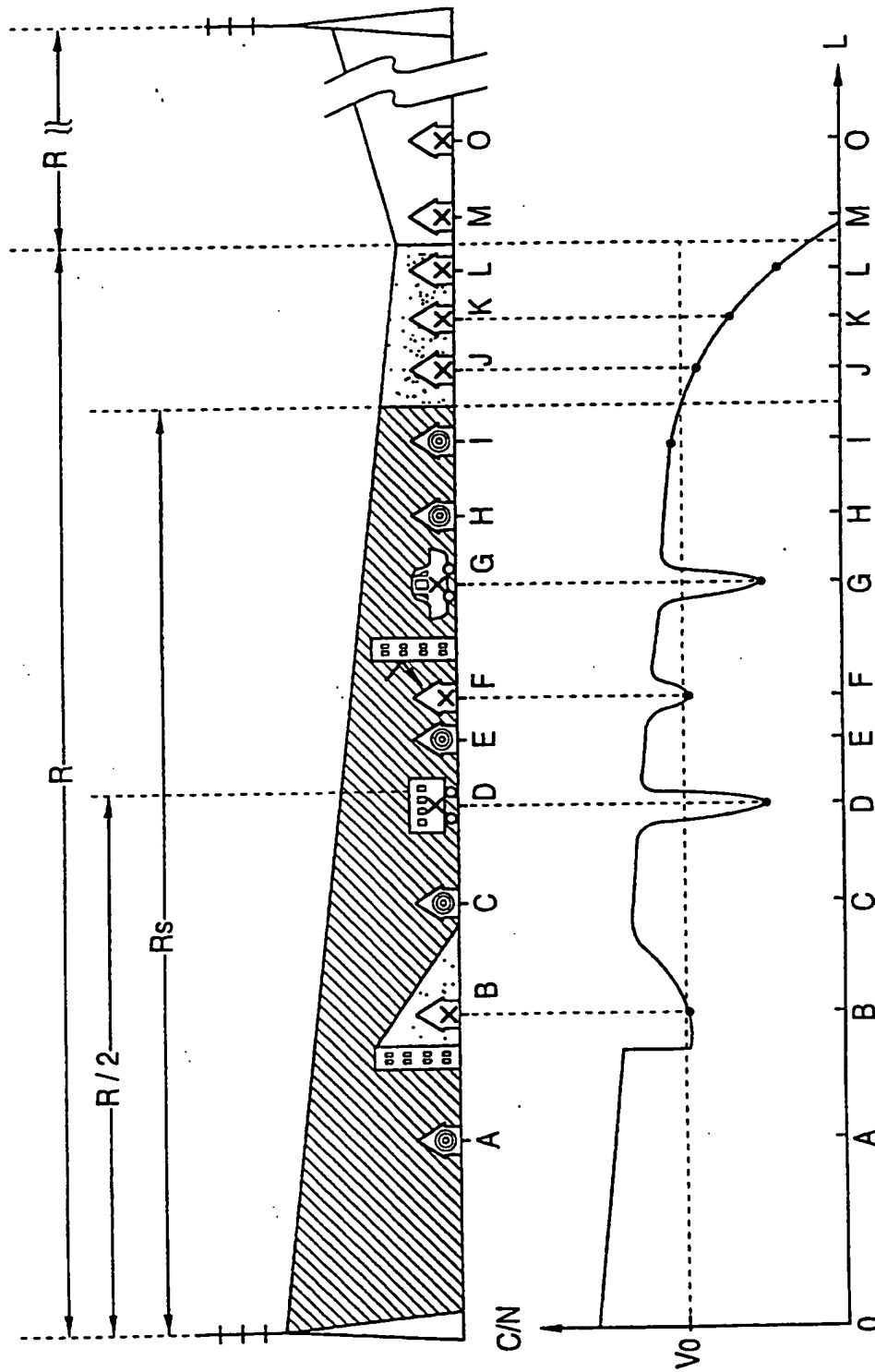


FIG. 97

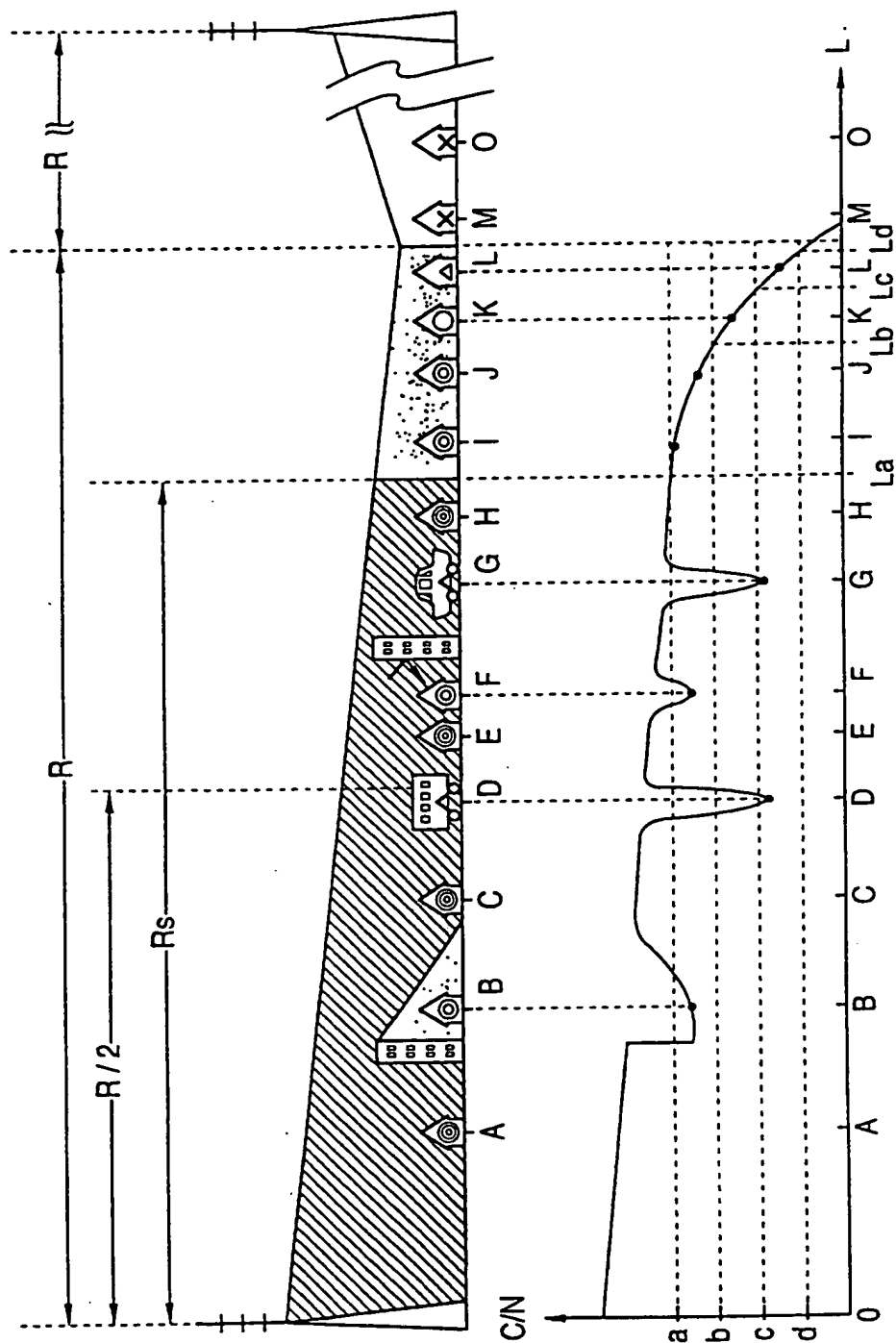


FIG. 98

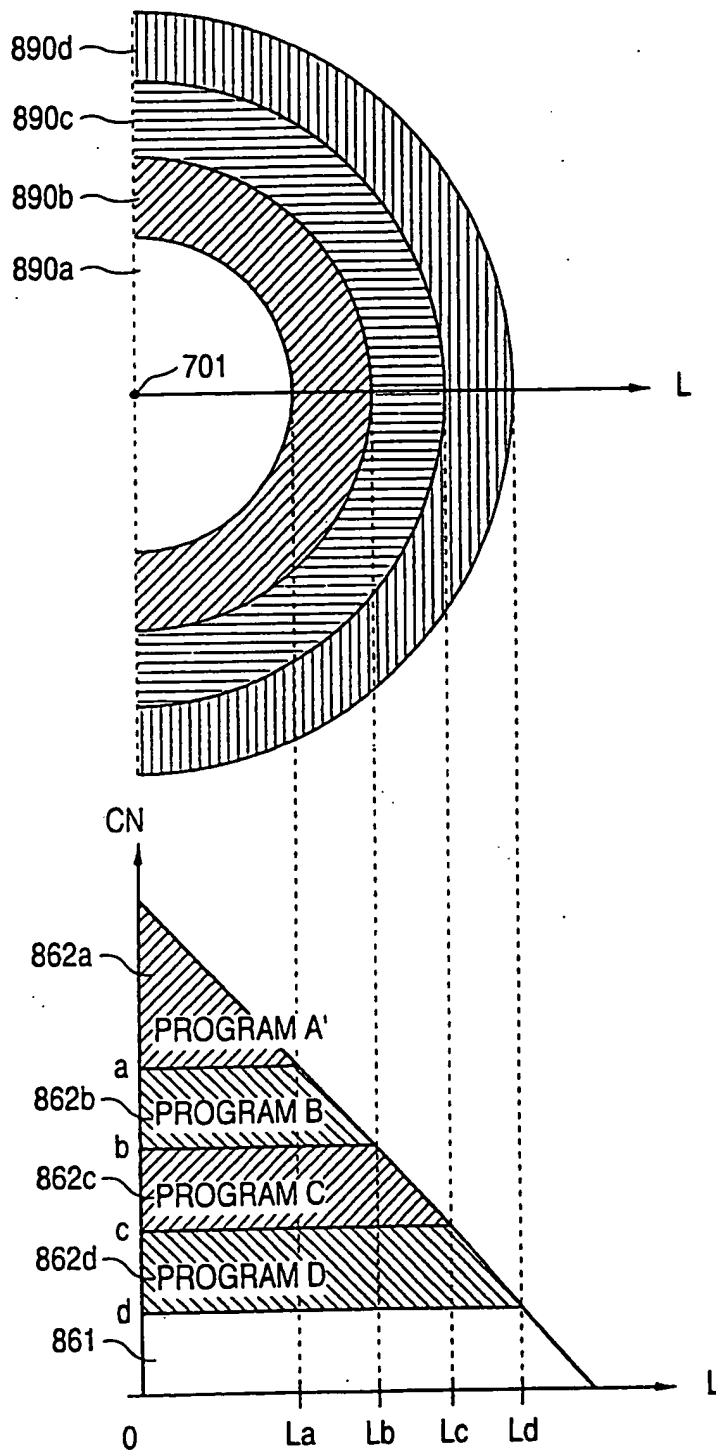


FIG. 99

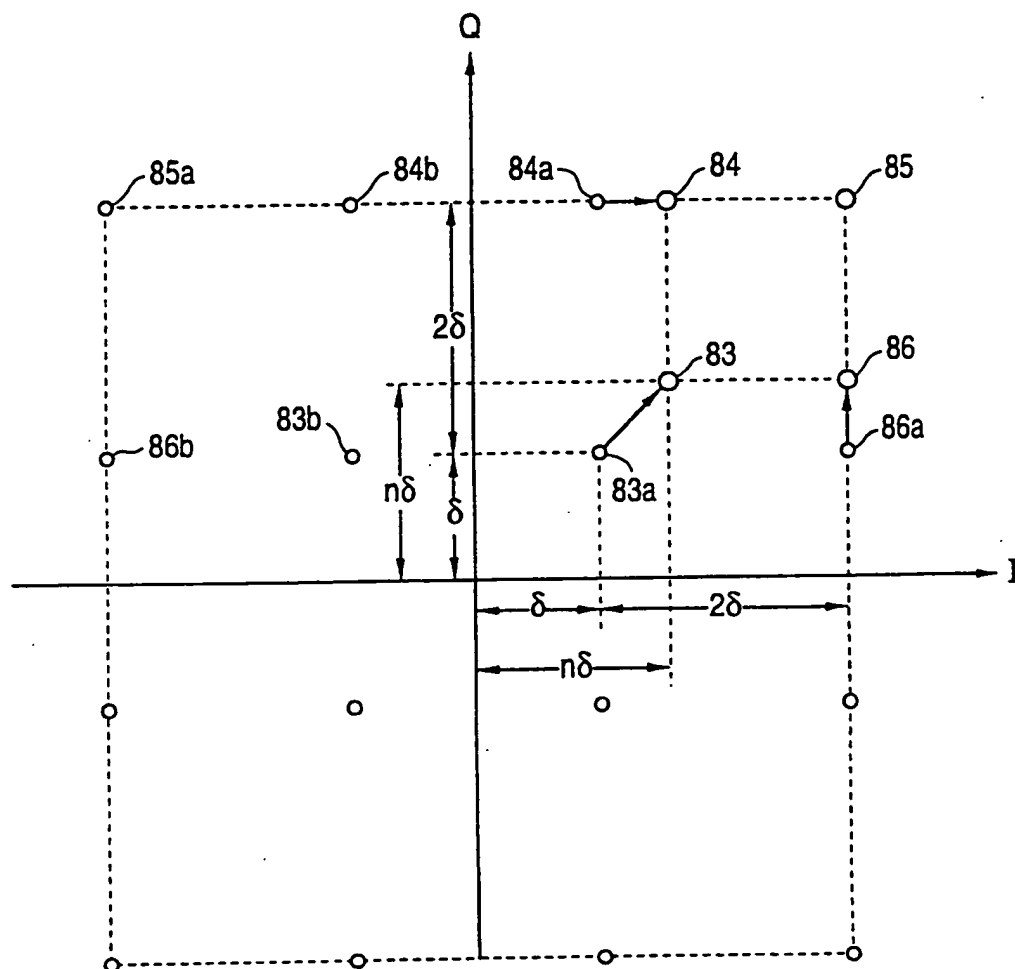


FIG. 100

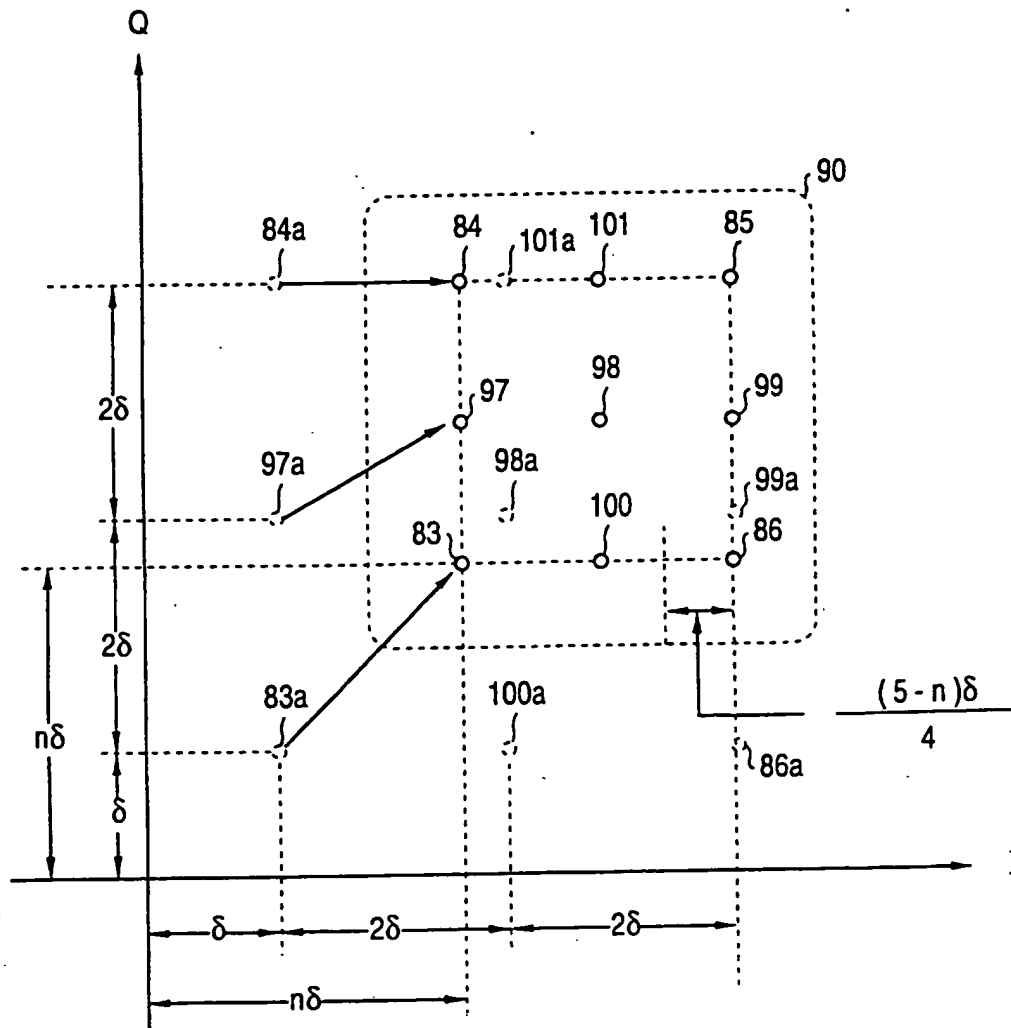


FIG. 101

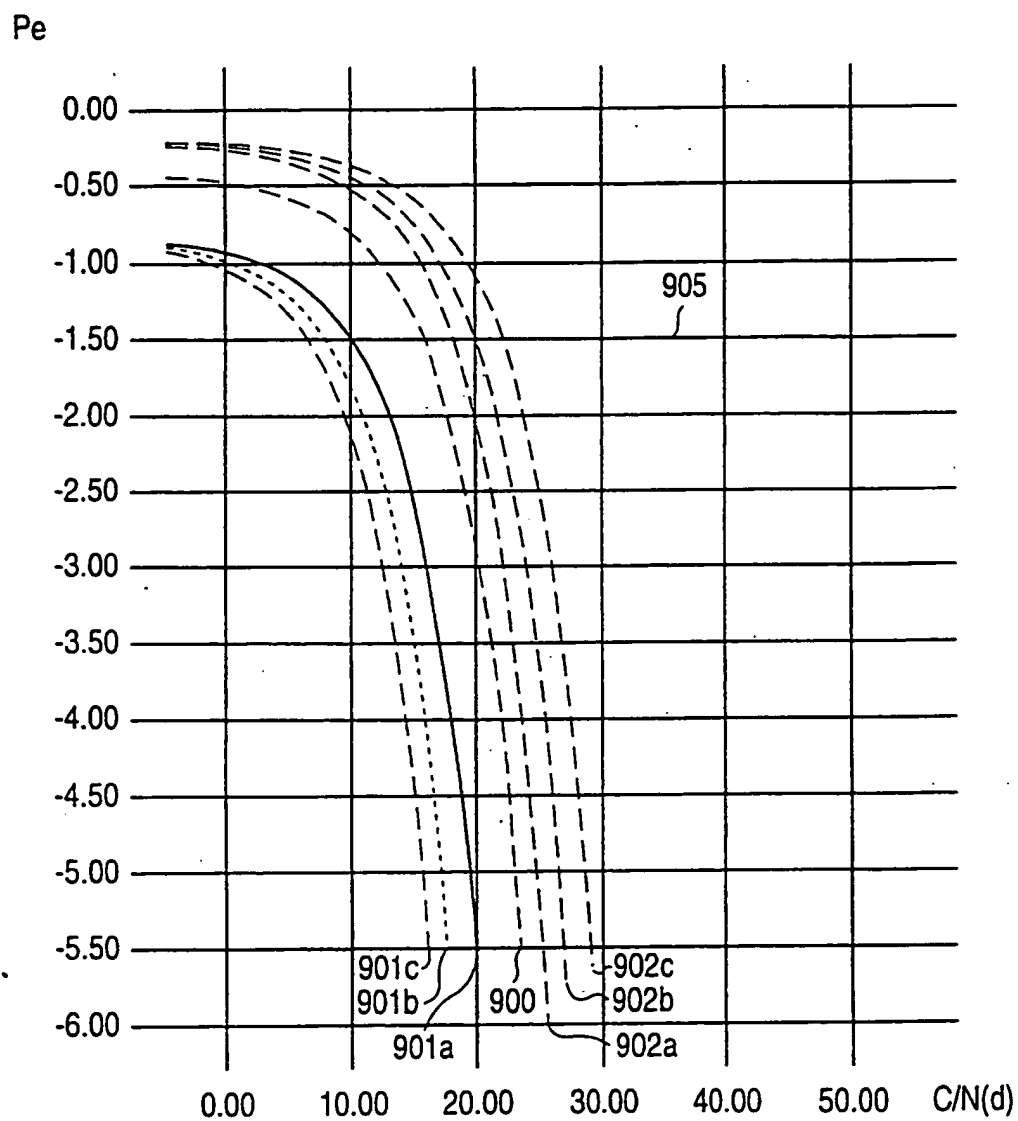


FIG. 102

Pe

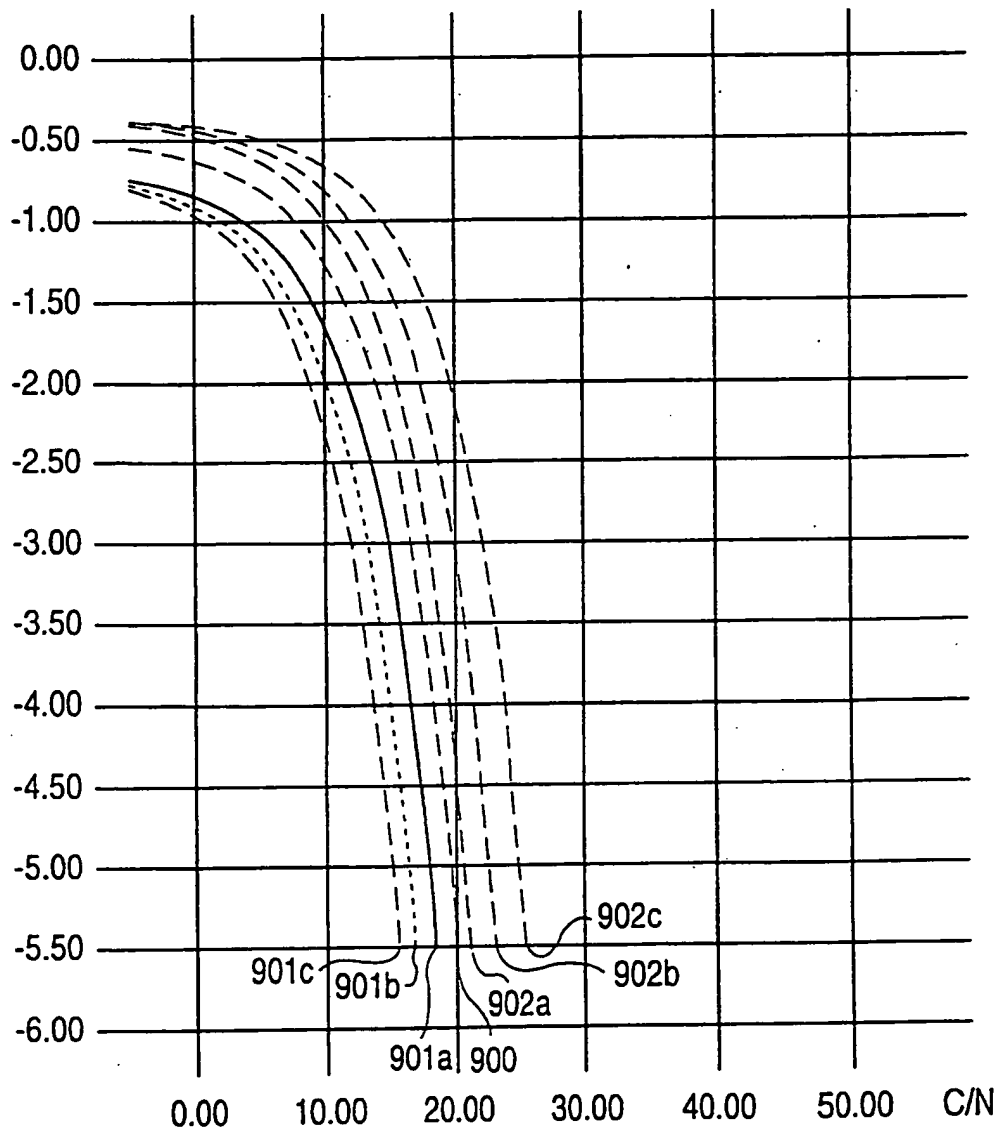


FIG. 103

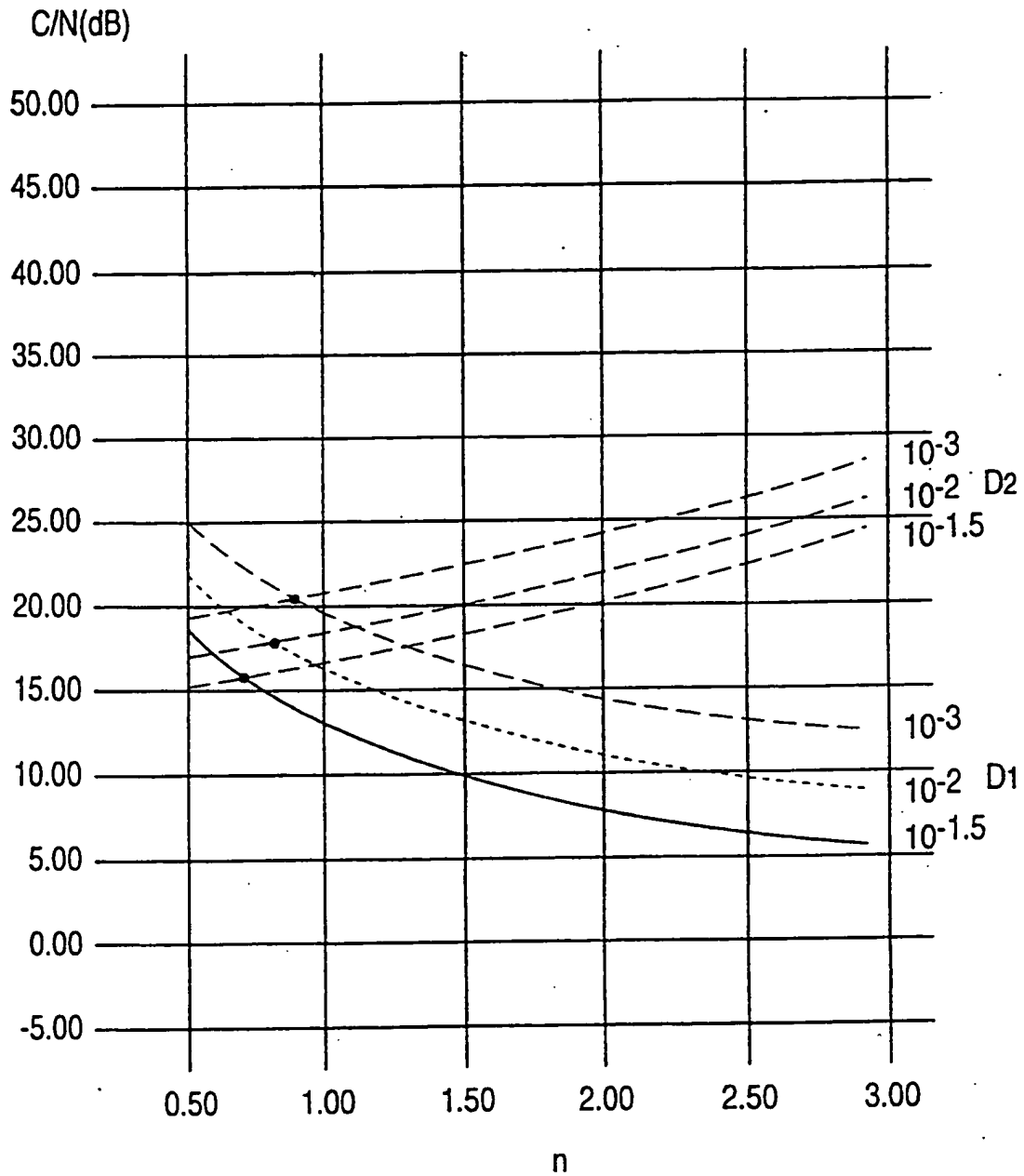


FIG. 104

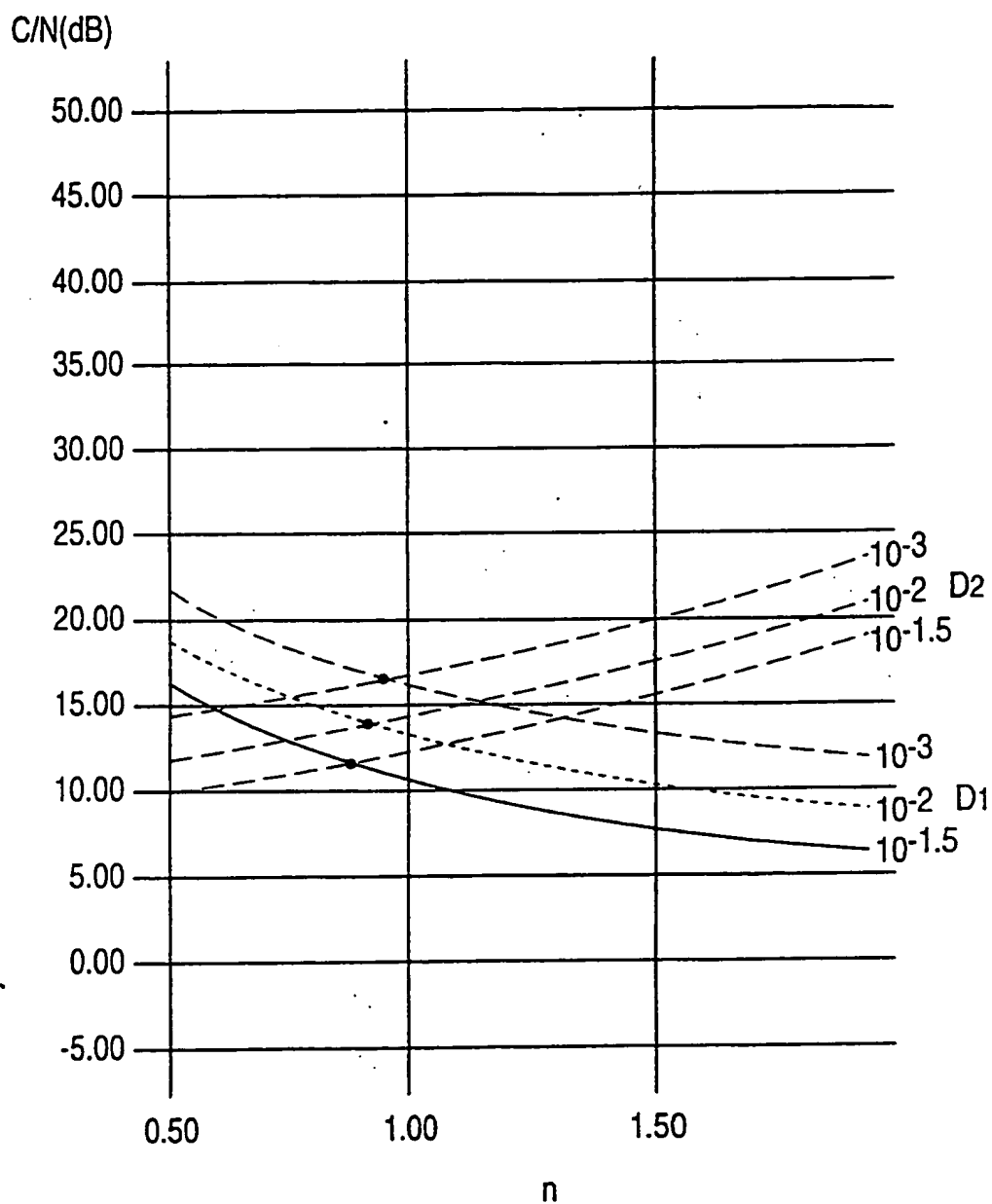


FIG. 105

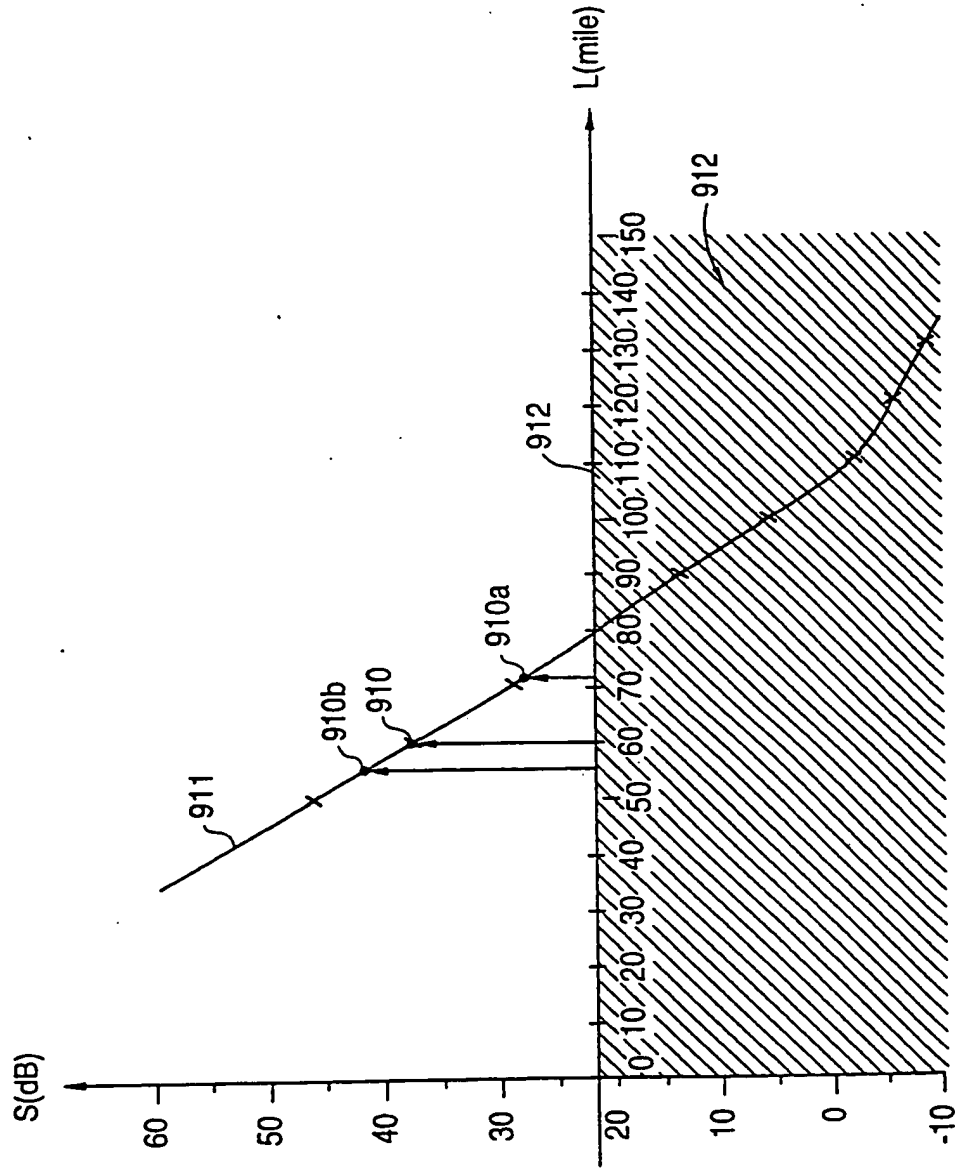


FIG. 106

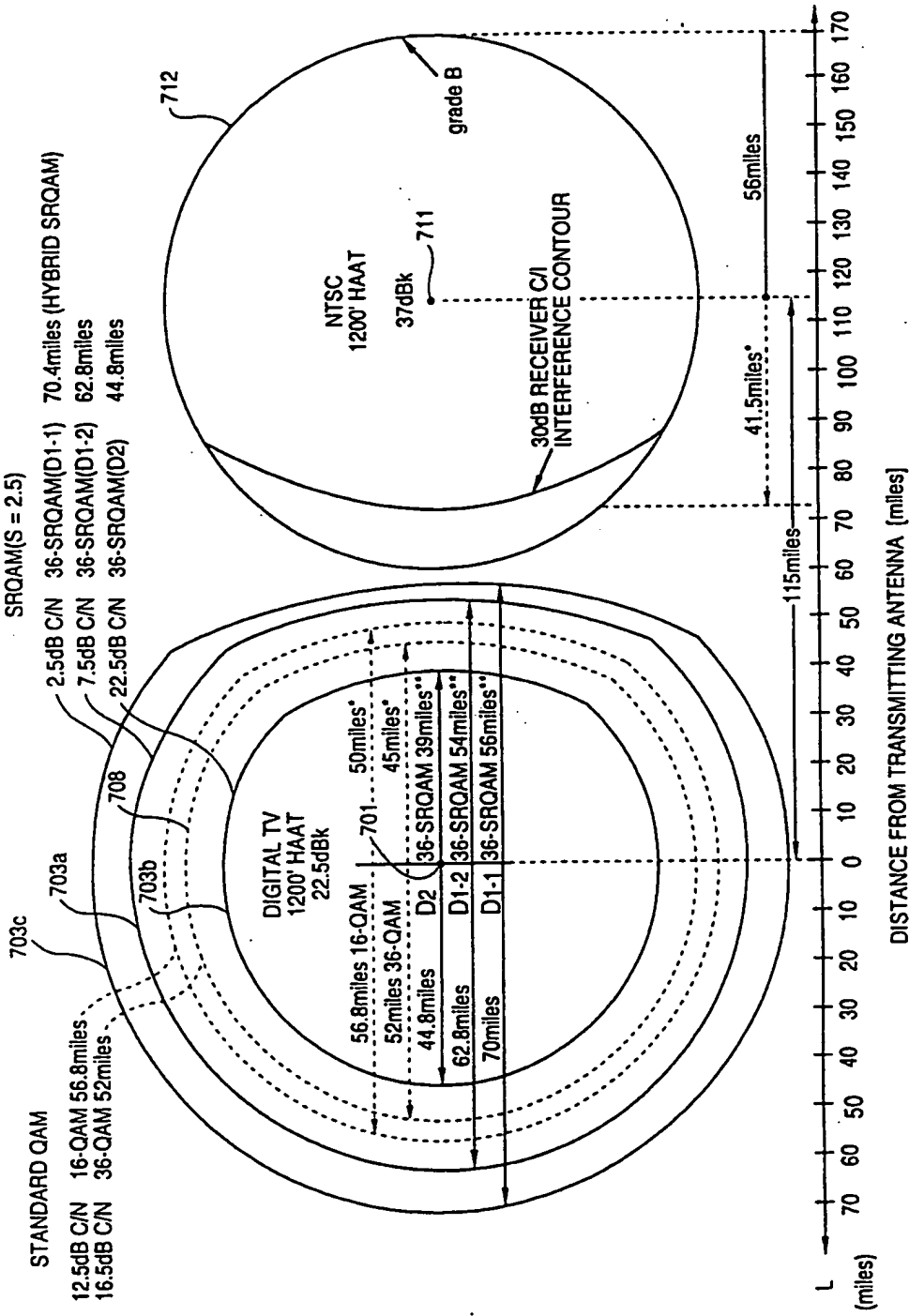


Figure 1 is a diagram illustrating the interference contours for a proposed digital TV station (701) and an existing NTSC station (711). The diagram shows concentric circles representing interference contours for various modulation schemes and a 30dB receiver C/I interference contour. The distance from the transmitting antenna is marked in miles on the x-axis (0 to 70). The y-axis shows the distance from the transmitting antenna in miles (0 to 170).

STANDARD QAM

Modulation Scheme	Distance (miles)
12.5dB C/N 16-QAM	56.8
16.5dB C/N 16-QAM	52
16.5dB C/N 36-QAM	52

703c

703a

703b

708

DIGITAL TV 1200' HAAT 22.5dBk

701

56.8miles 16-QAM

52miles 36-QAM

47.8miles

59.8miles

65.8miles

36-SRQAM D2

36-SRQAM D1-2

36-SRQAM D1-1

50miles*

45miles*

42miles**

53miles**

56miles**

NTSC 1200' HAAT 37dBk

711

30dB RECEIVER C/I INTERFERENCE CONTOUR

grade B

712

41.5miles*

56miles

115miles

DISTANCE FROM TRANSMITTING ANTENNA [miles]

**** APPROXIMATELY CALCULATED**

FIG. 108(a)

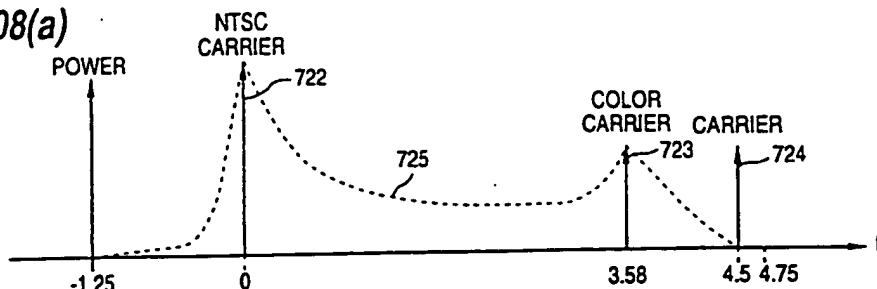


FIG. 108(b)

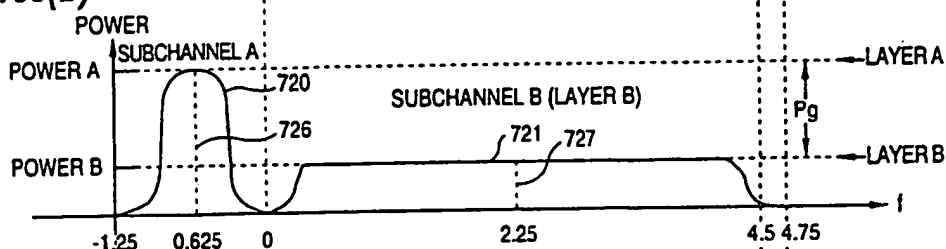


FIG. 108(c)

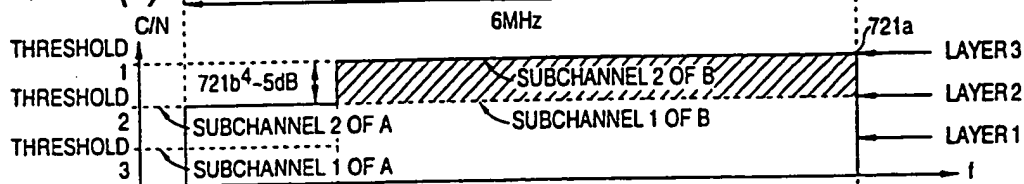


FIG. 108(d)

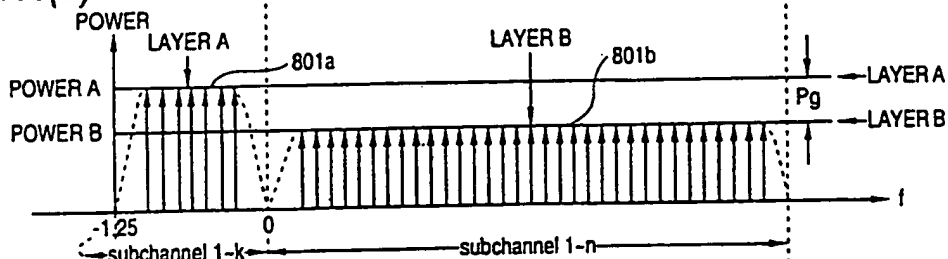


FIG. 108(e)

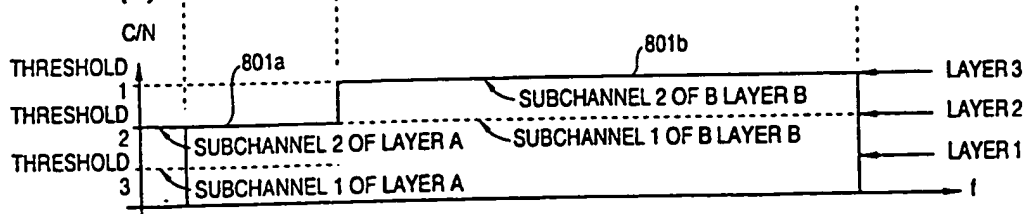


FIG. 109

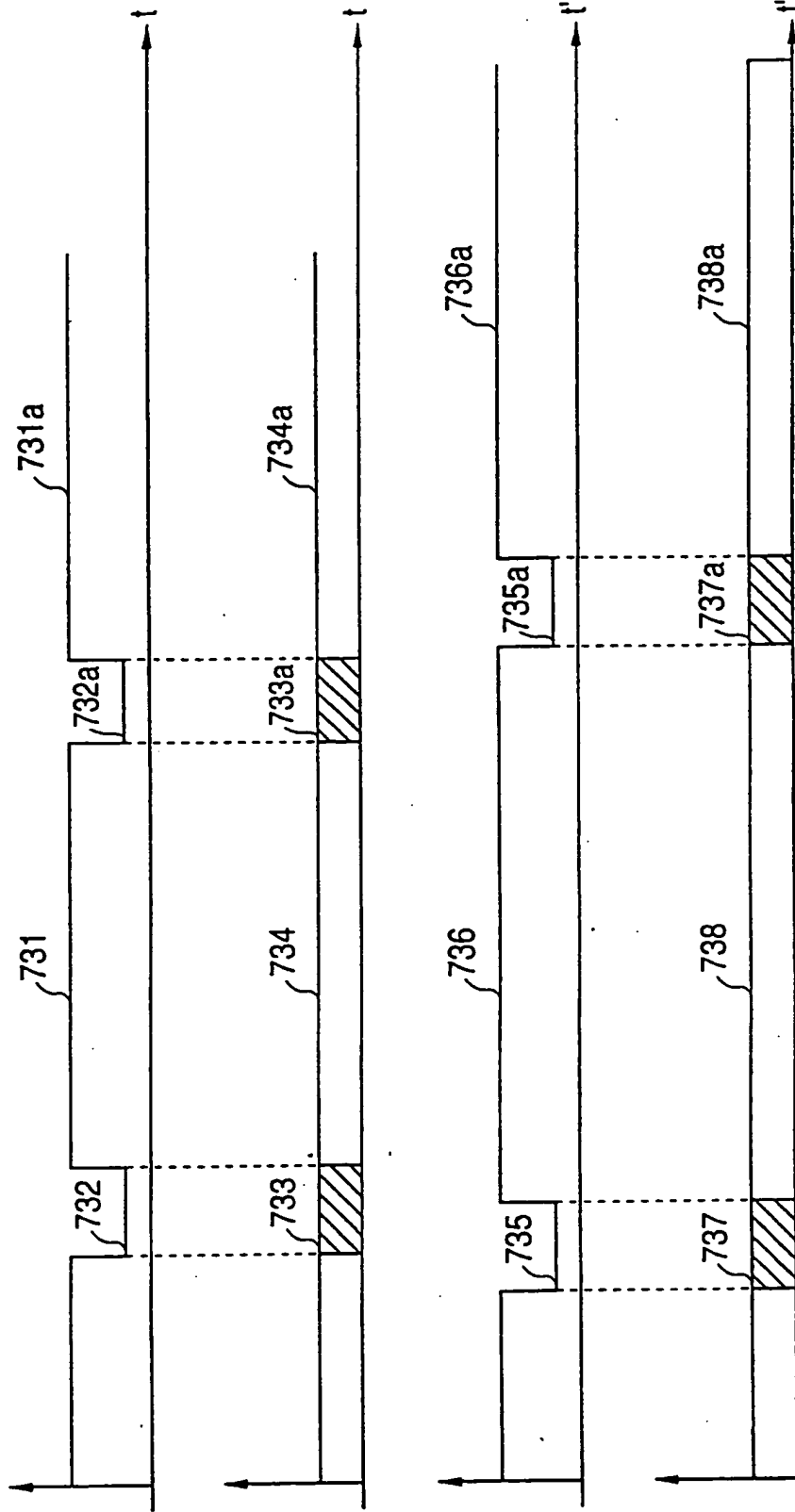


FIG. 110

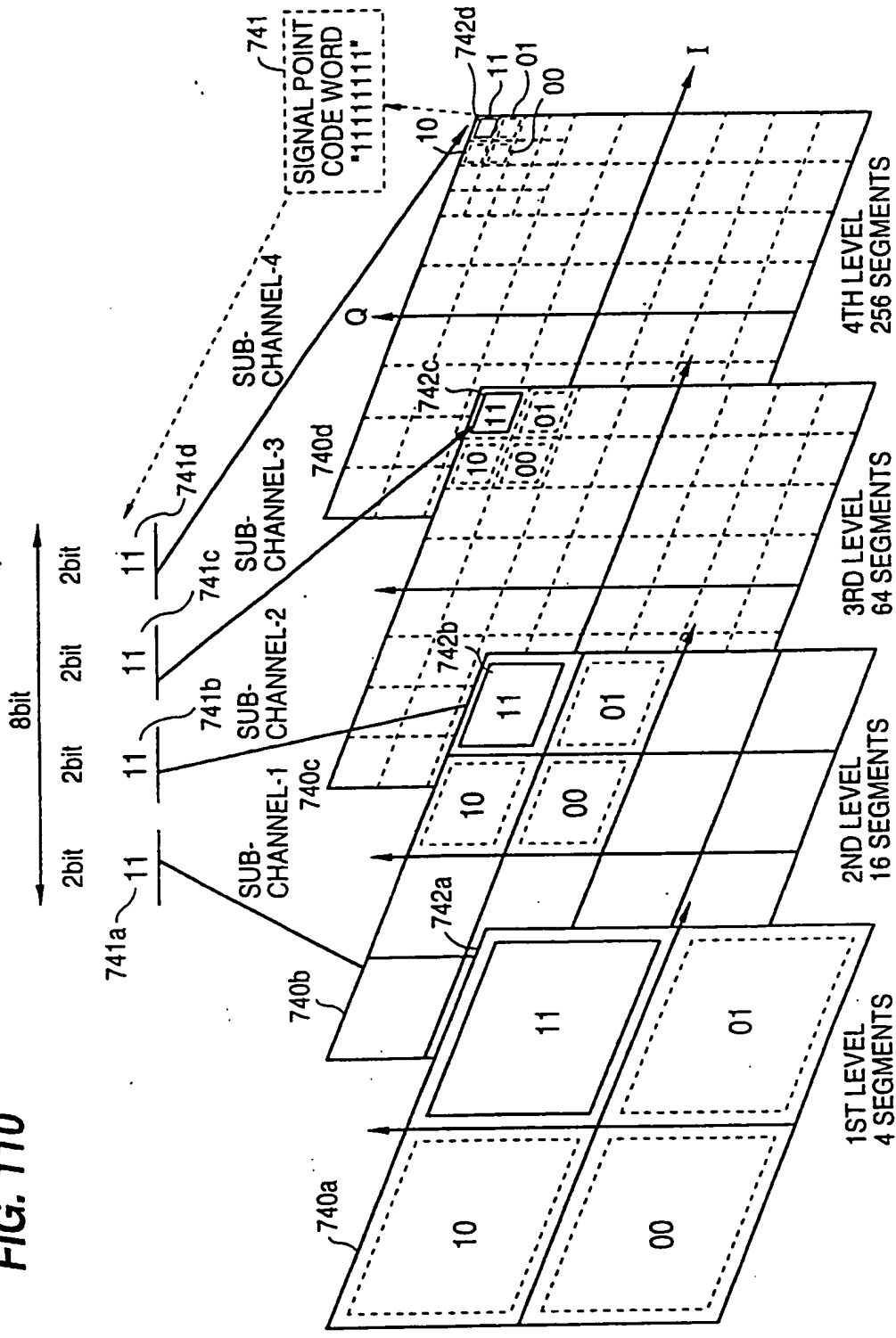
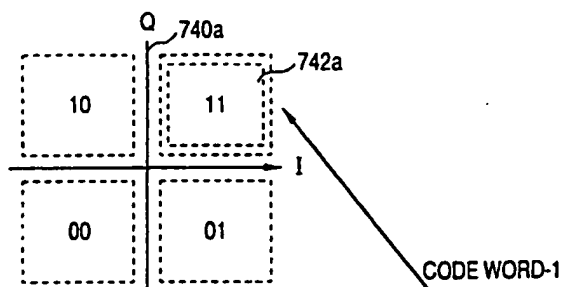
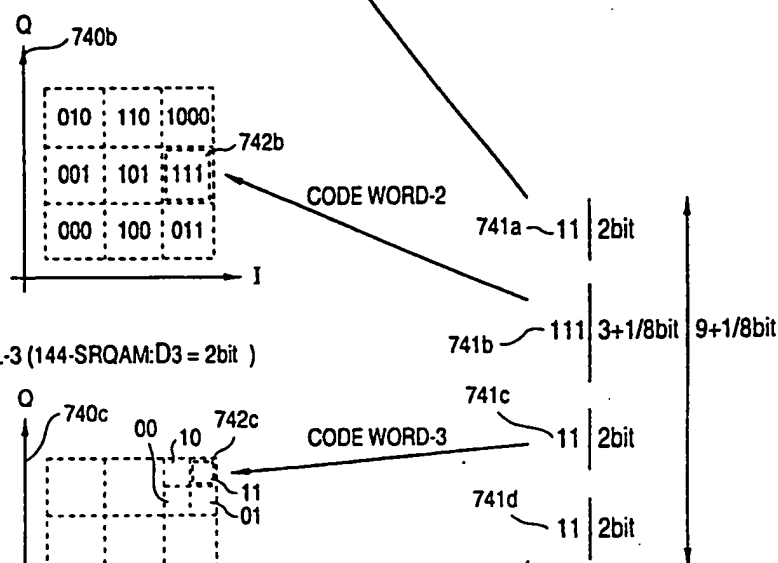


FIG. 111

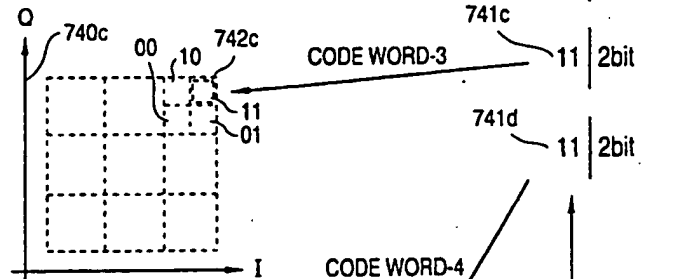
SUBCHANNEL-1 (SRQAM:D1 = 2bit)



SUBCHANNEL-2 (36-SRQAM:D2 = 3bit + 1/8bit)



SUBCHANNEL-3 (144-SRQAM:D3 = 2bit)



SUBCHANNEL-4 (576-SRQAM:D4 = 2bit)

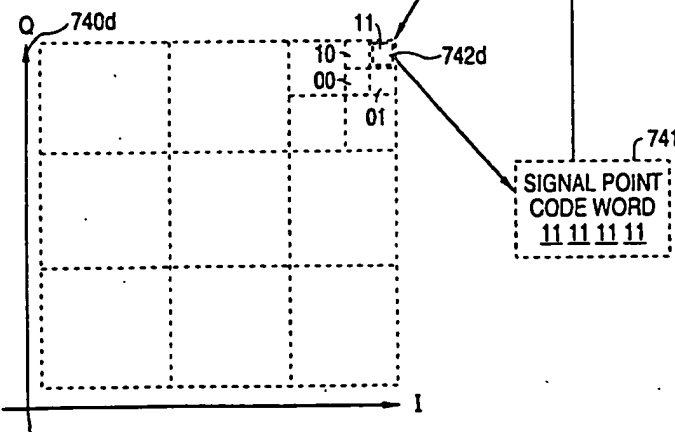
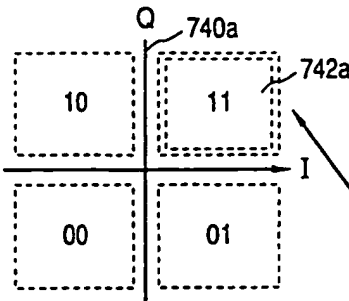
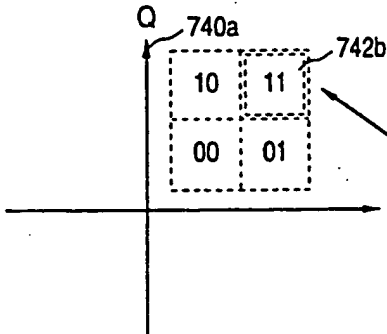


FIG. 112

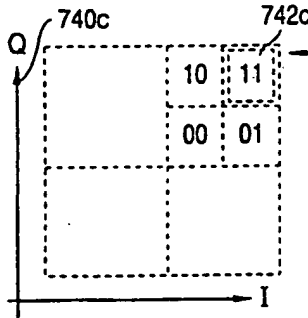
SUBCHANNEL-1 (SRQAM:D1 = 2bit)



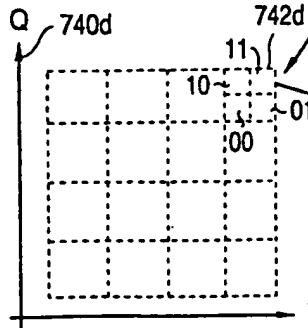
SUBCHANNEL-2 (16-SRQAM:D2 = 2bit)



SUBCHANNEL-3 (64-SRQAM:D3 = 2bit)



SUBCHANNEL-4 (256-SRQAM:D4 = 2bit)



CODE WORD-1

CODE WORD-2

CODE WORD-3

CODE WORD-4

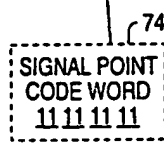
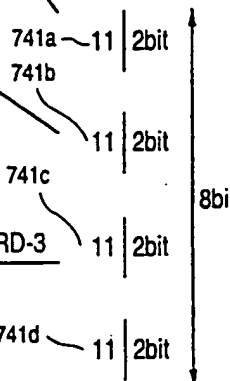


FIG. 113

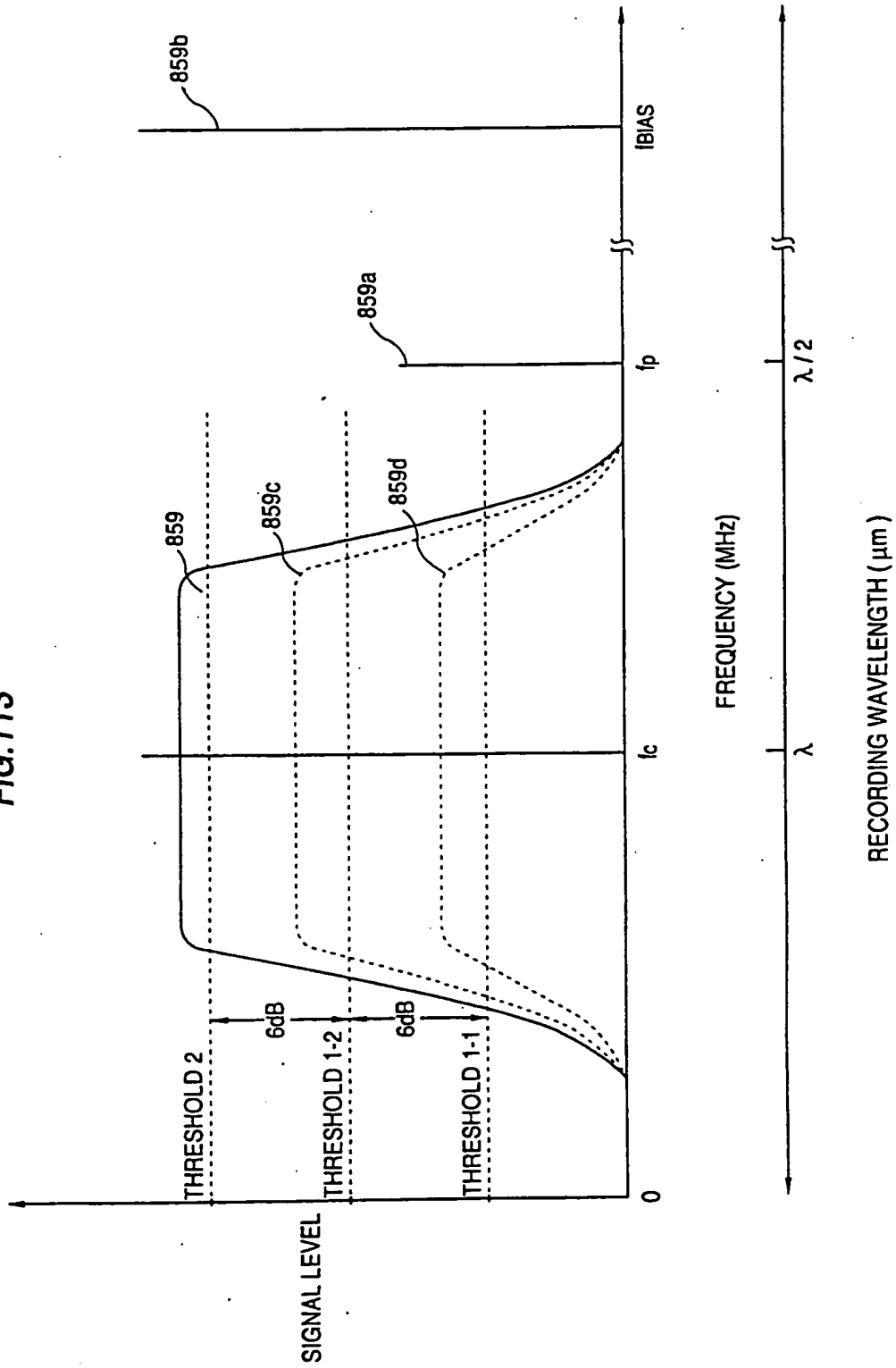


FIG. 114

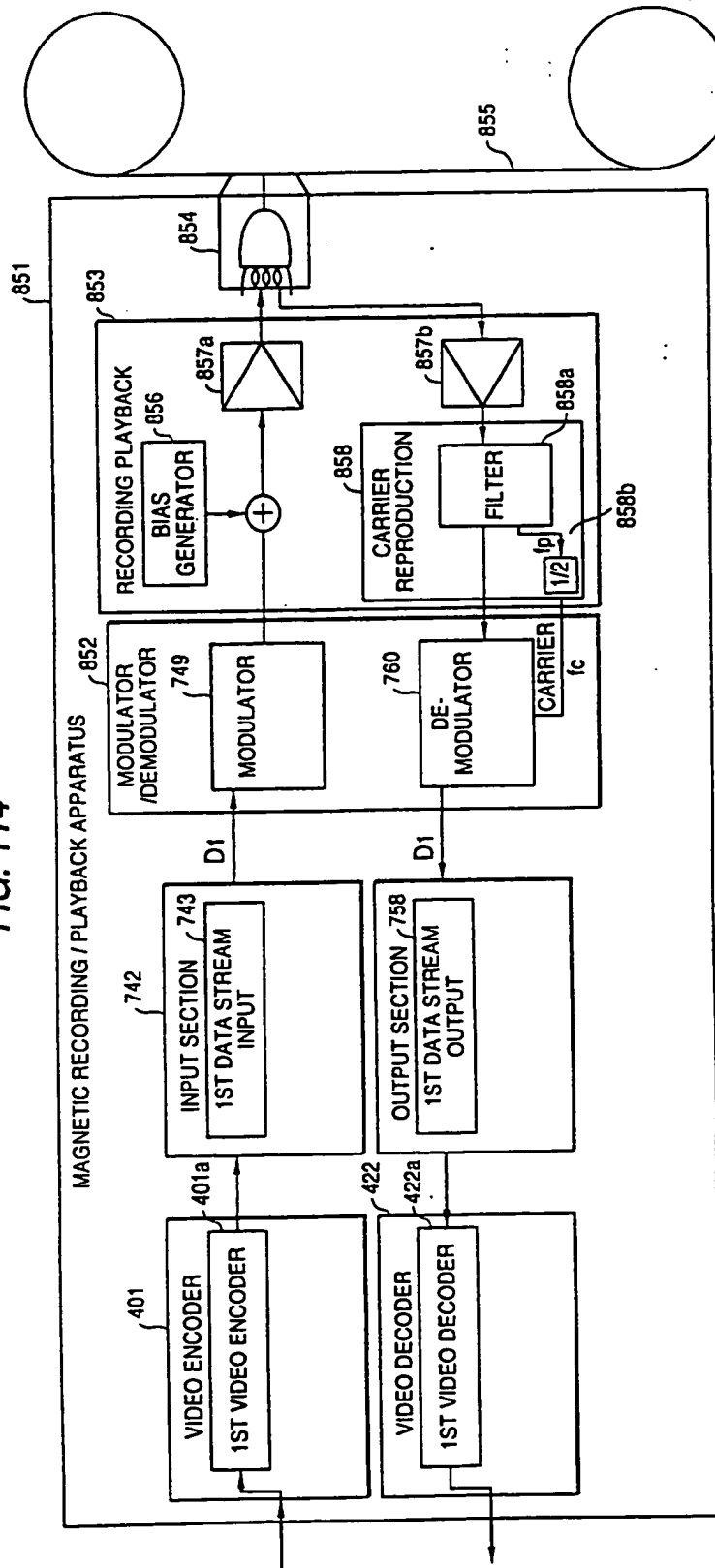


FIG. 115

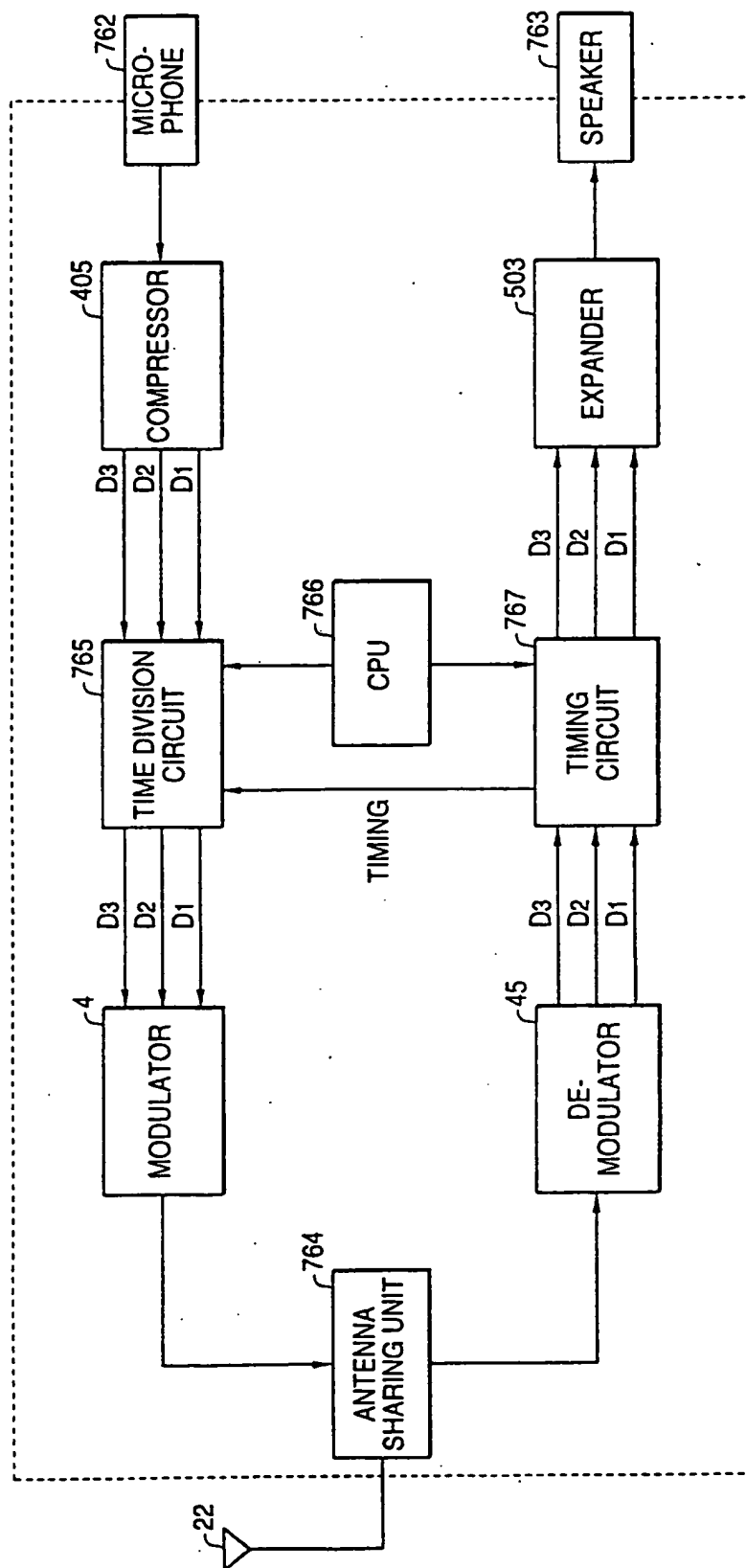


FIG. 116

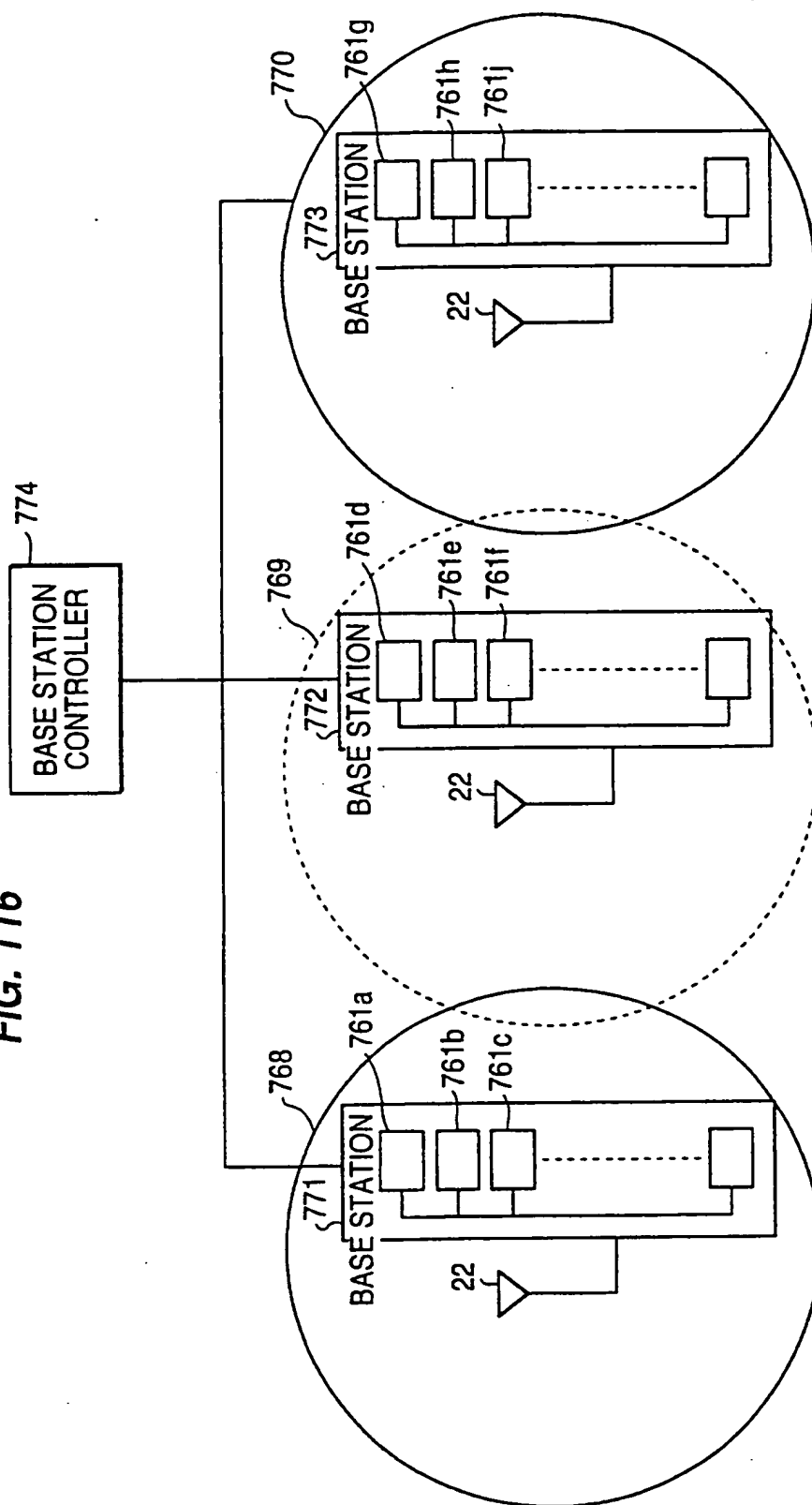
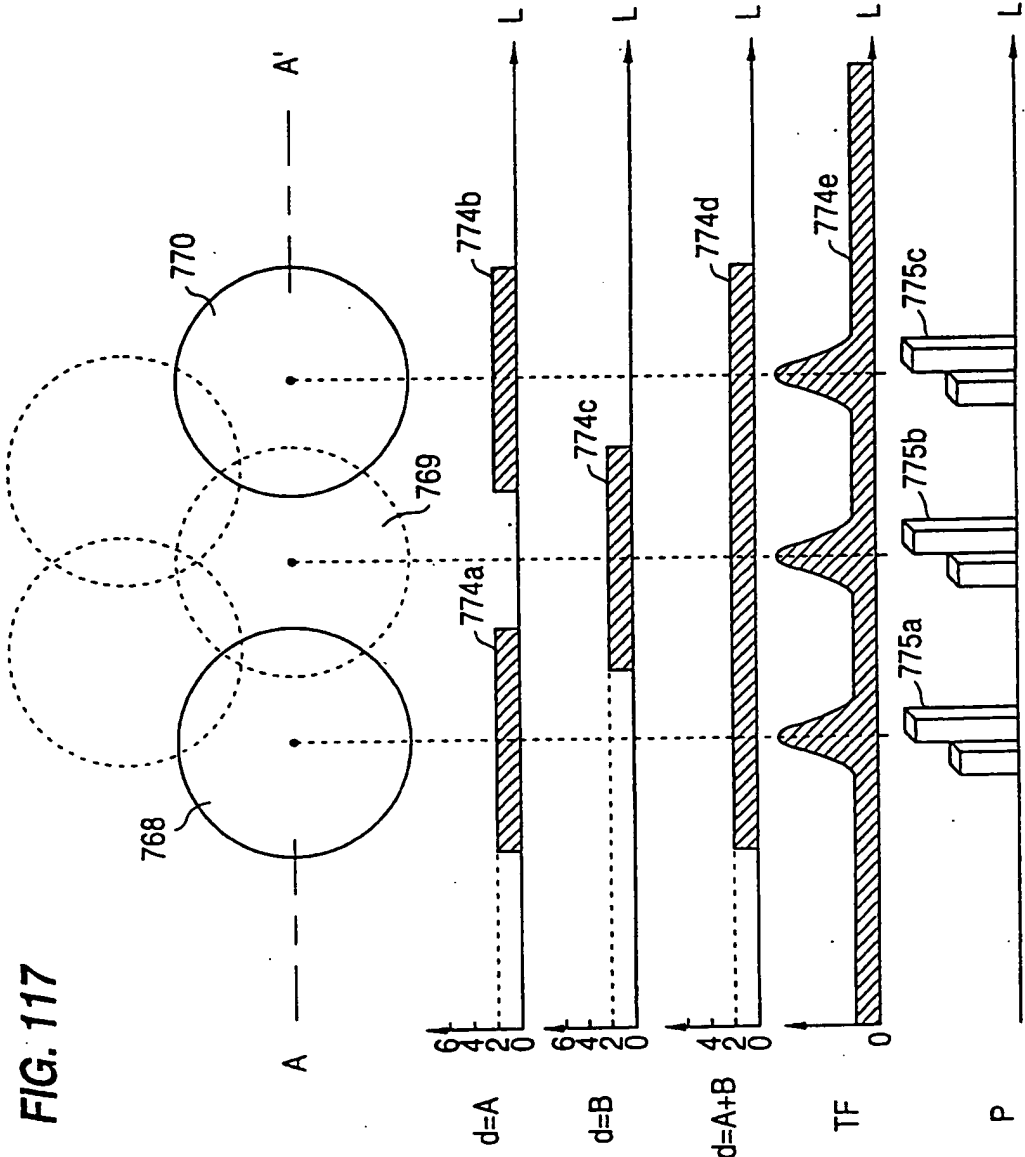


FIG. 117



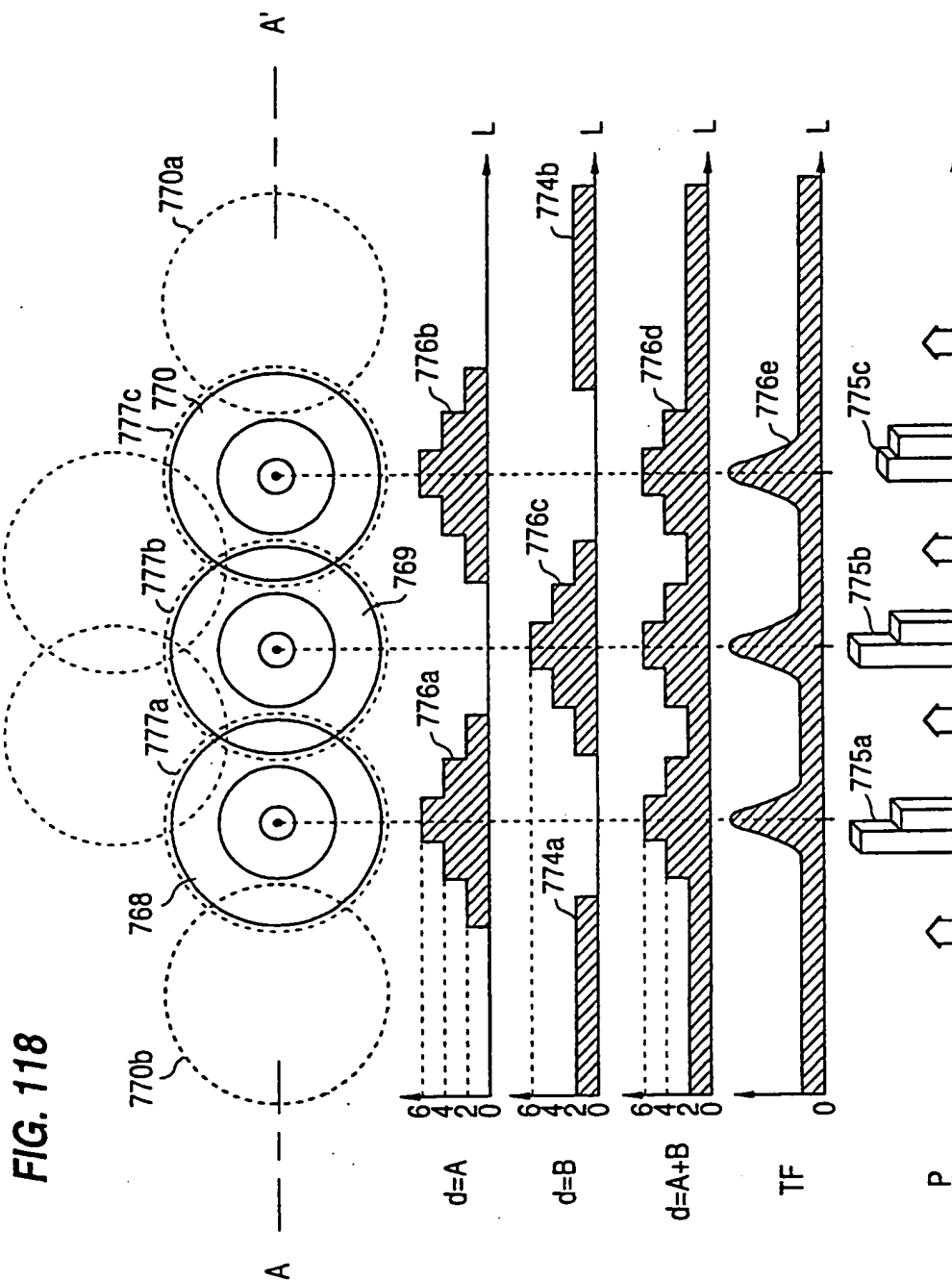


FIG. 119(a)

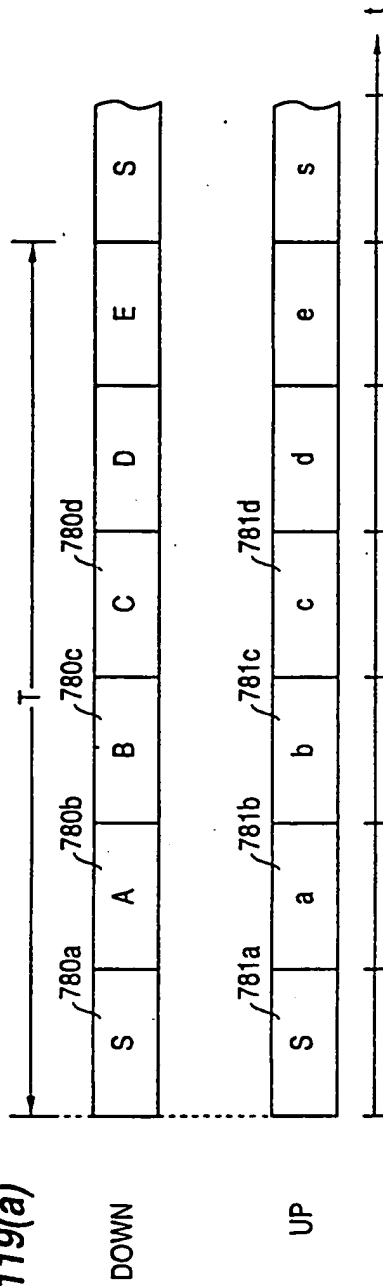


FIG. 119(b)

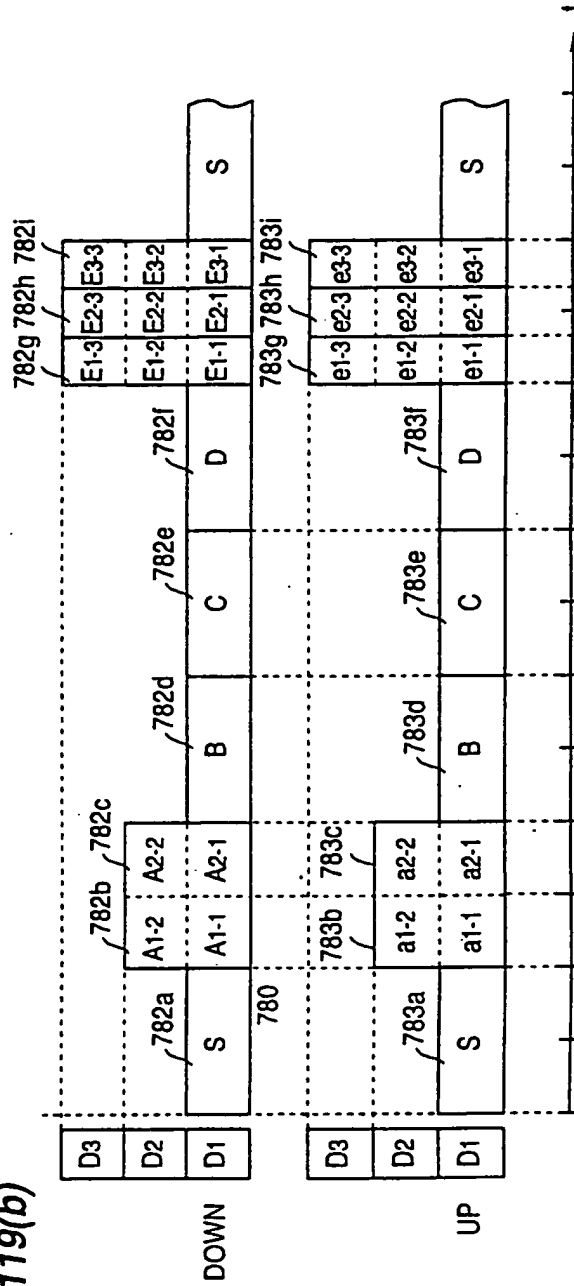


FIG. 120(a)

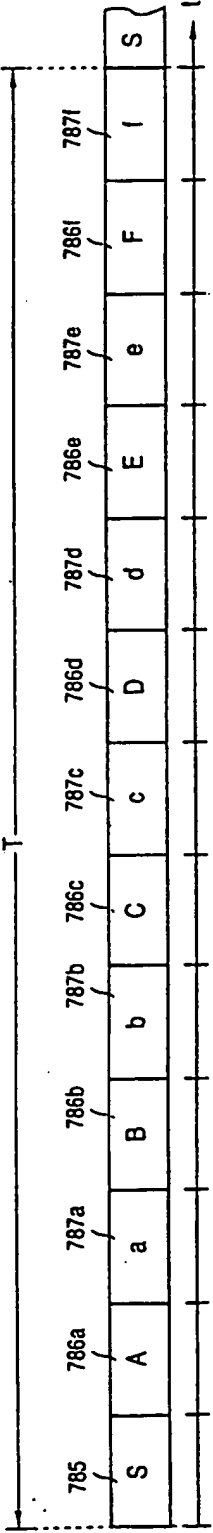


FIG. 120(b)

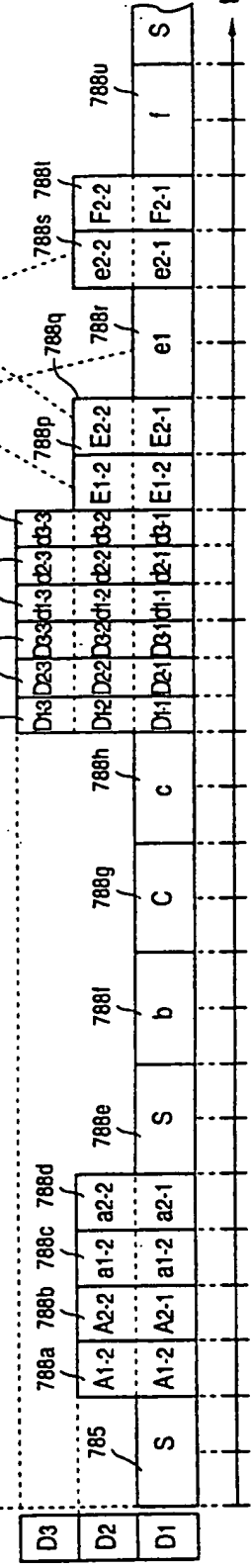


FIG. 121

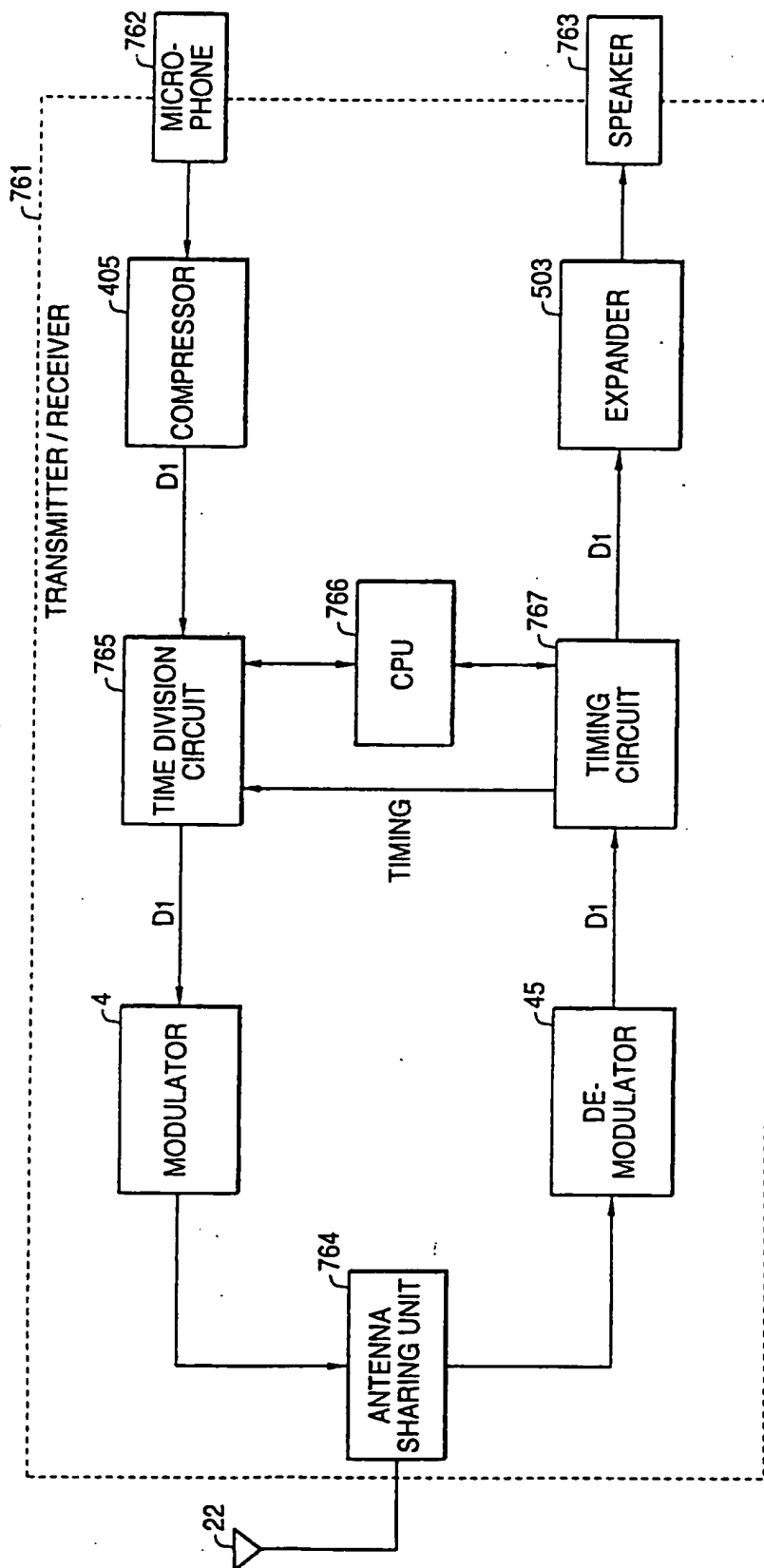


FIG. 122

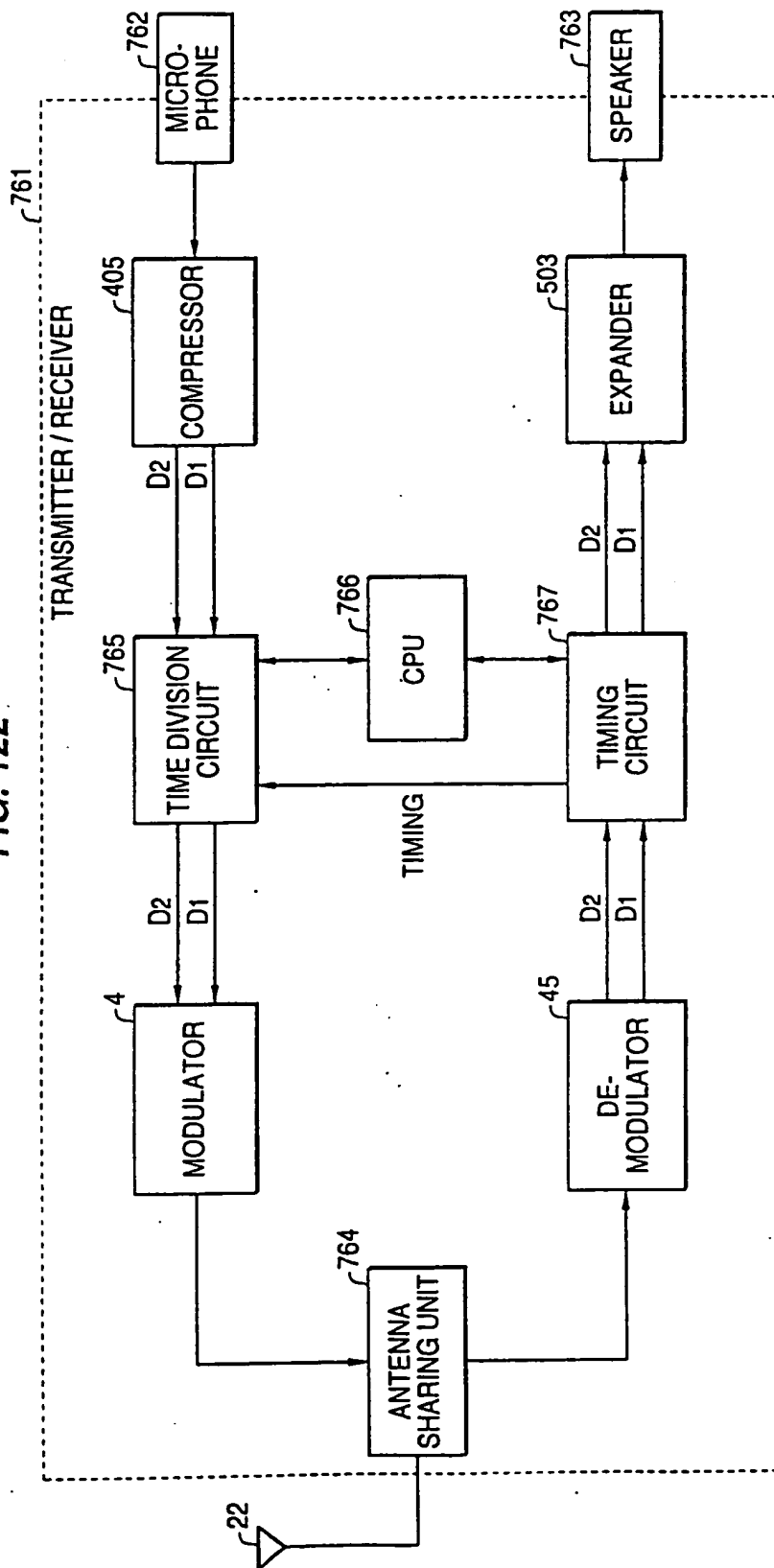
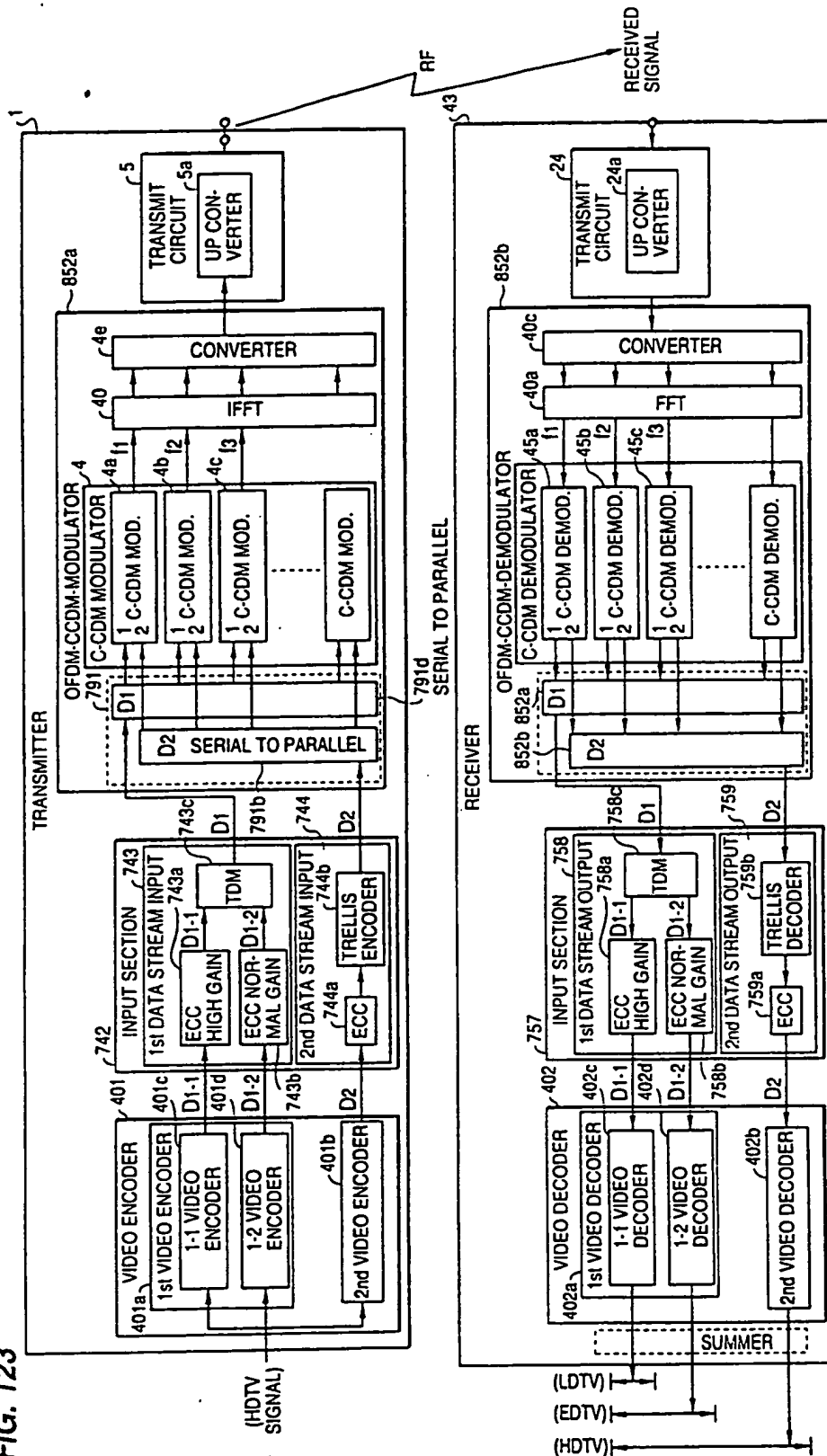


FIG. 123



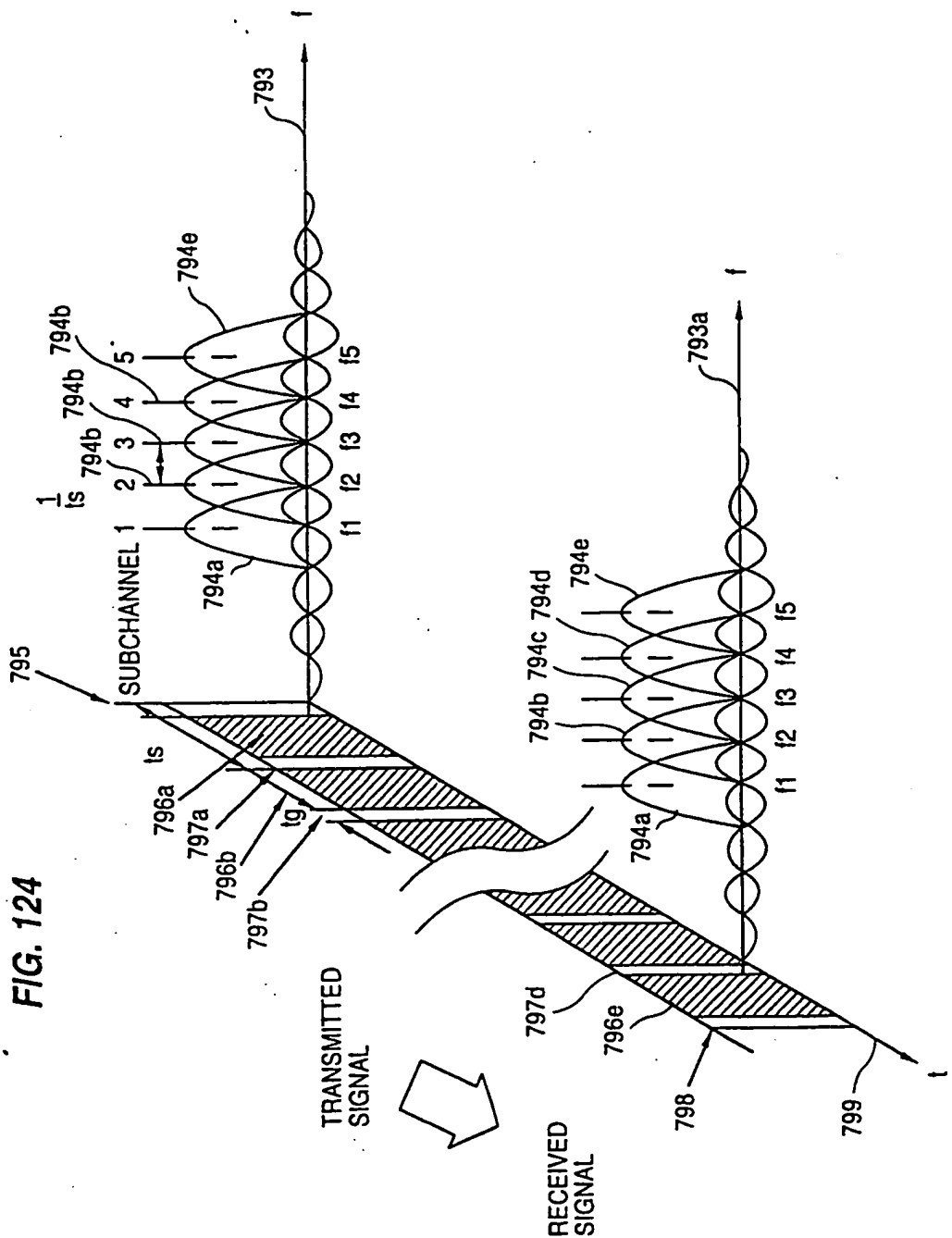


FIG. 125(a)

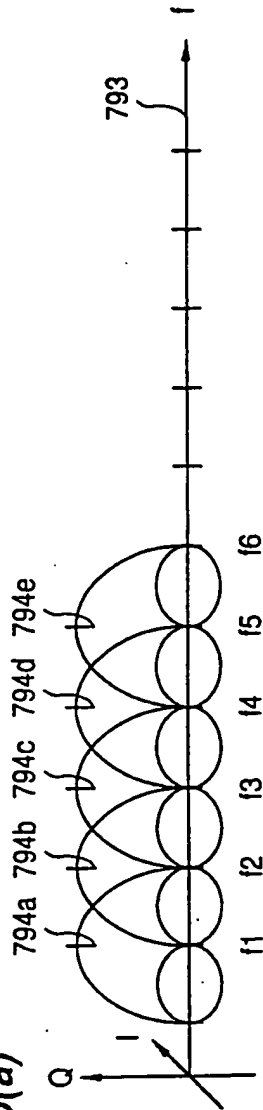
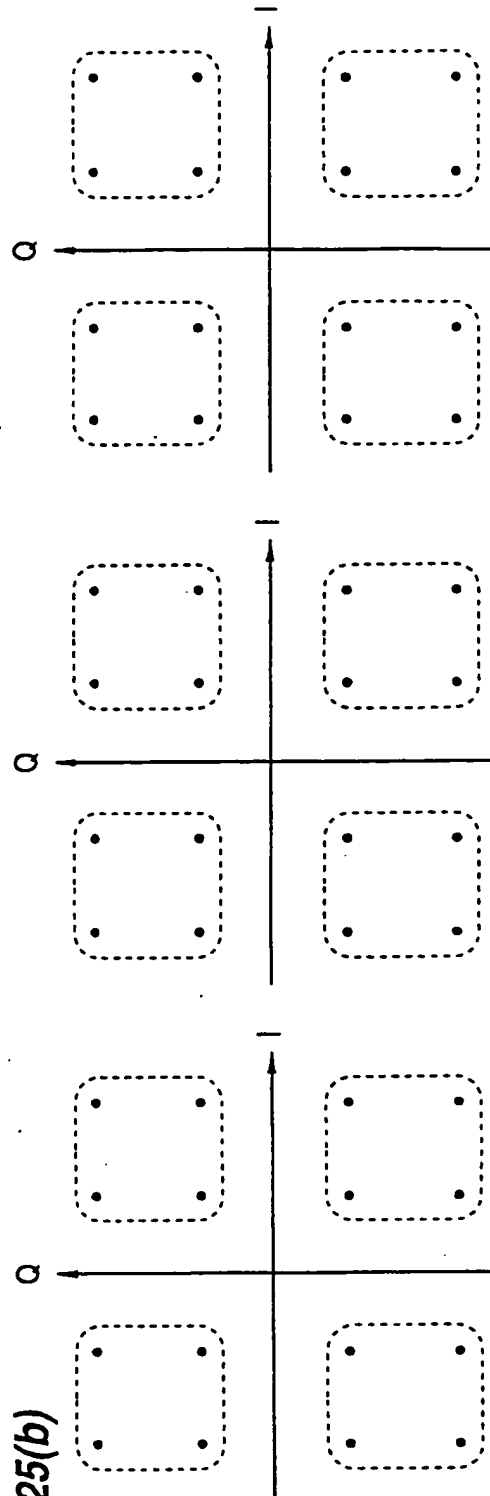


FIG. 125(b)



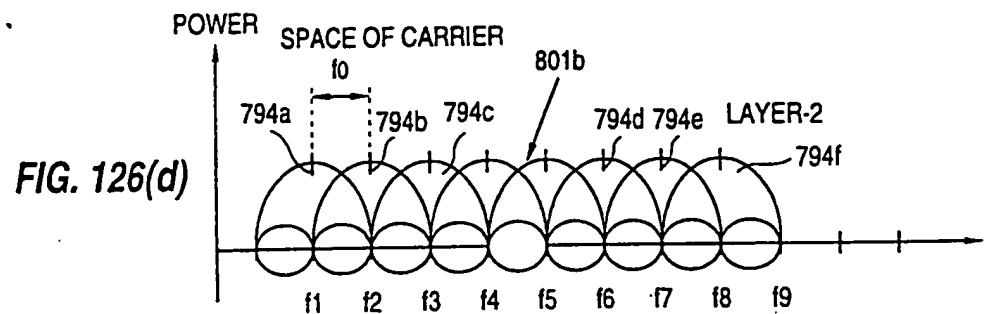
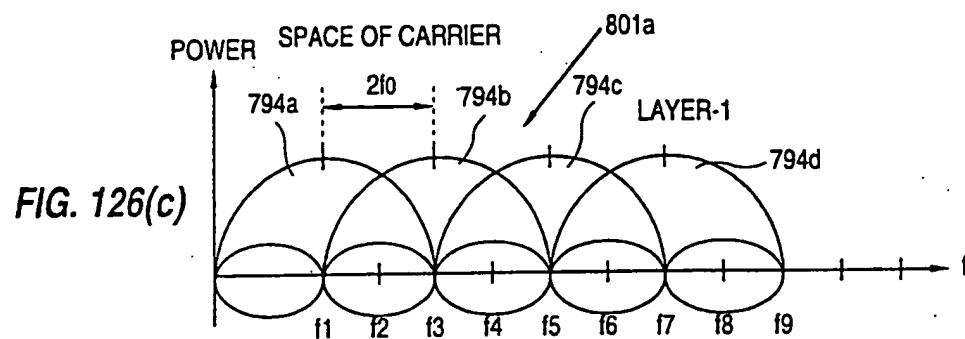
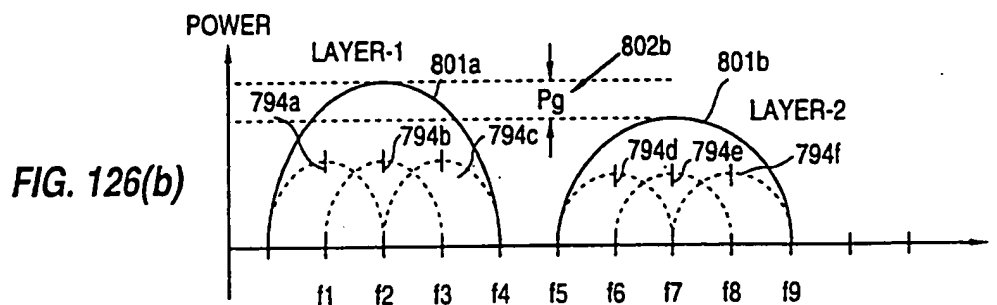
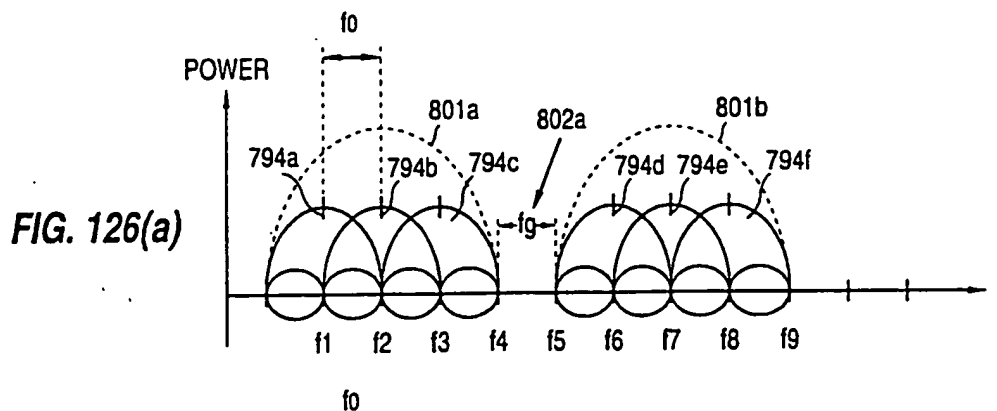


FIG. 127

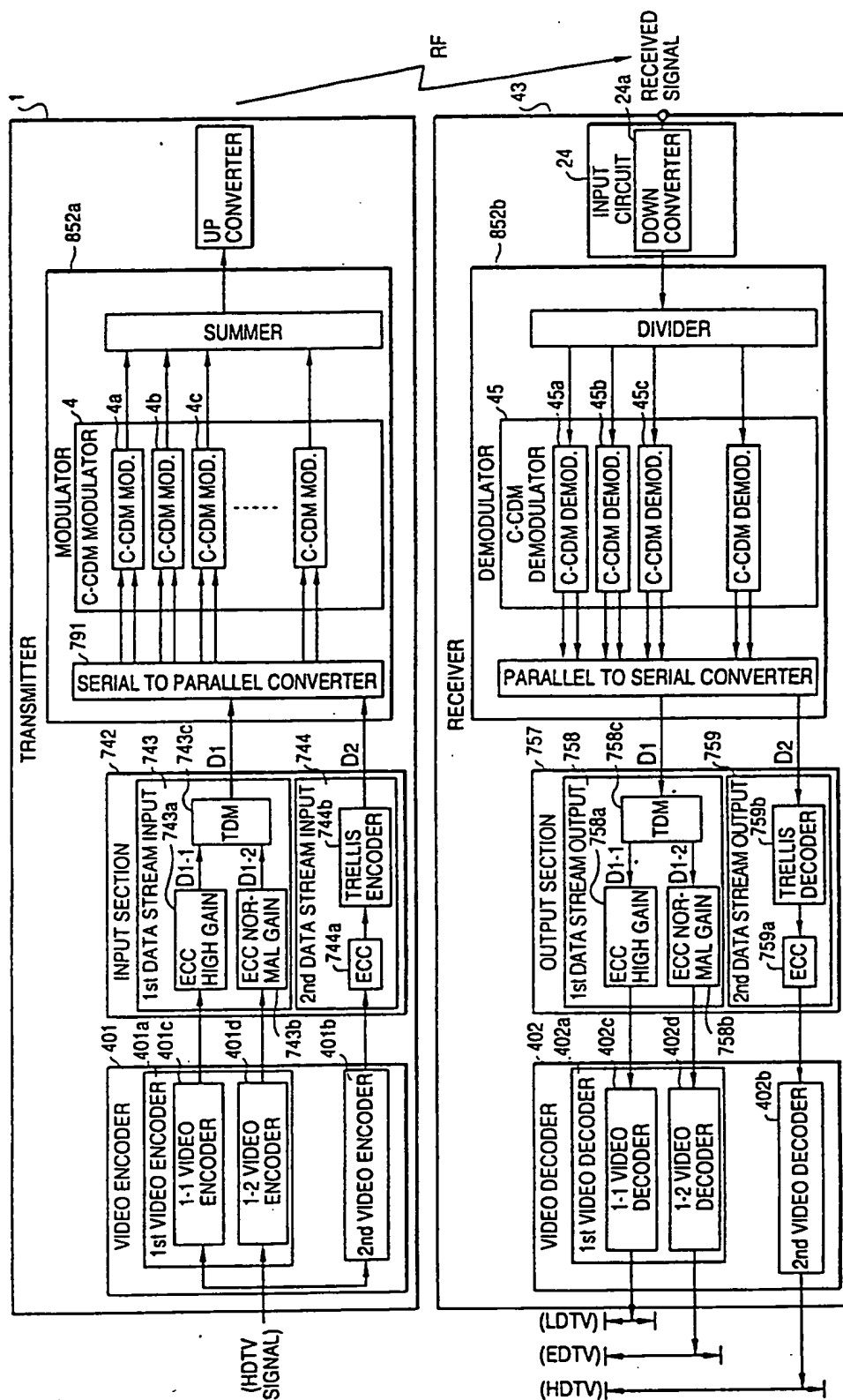


FIG. 128(a)

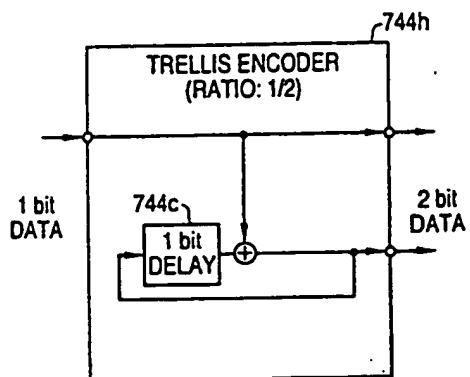


FIG. 128(d)

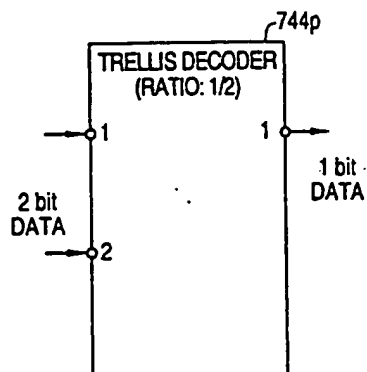


FIG. 128(b)

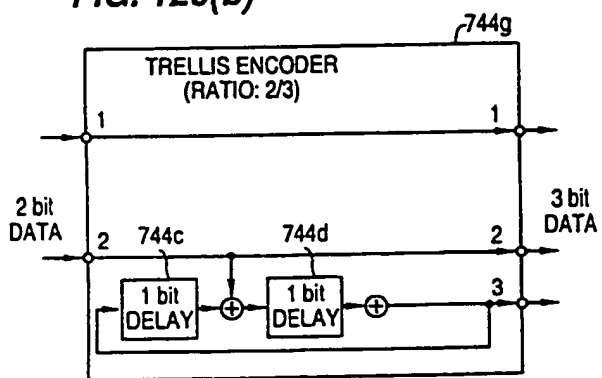


FIG. 128(e)

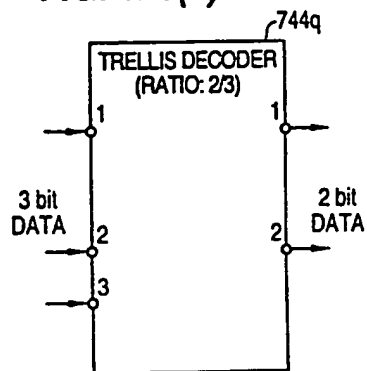


FIG. 128(c)

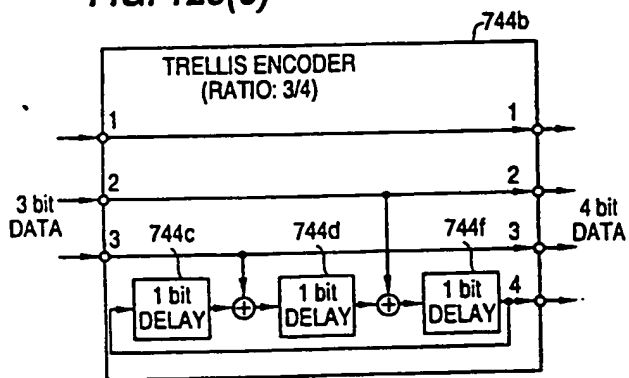


FIG. 128(f)

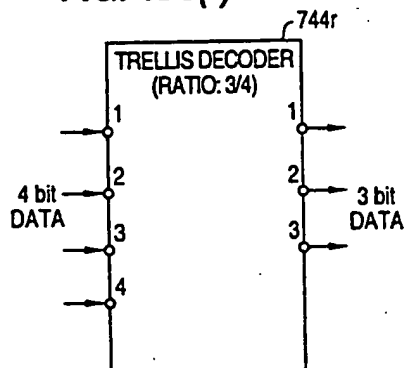


FIG. 129

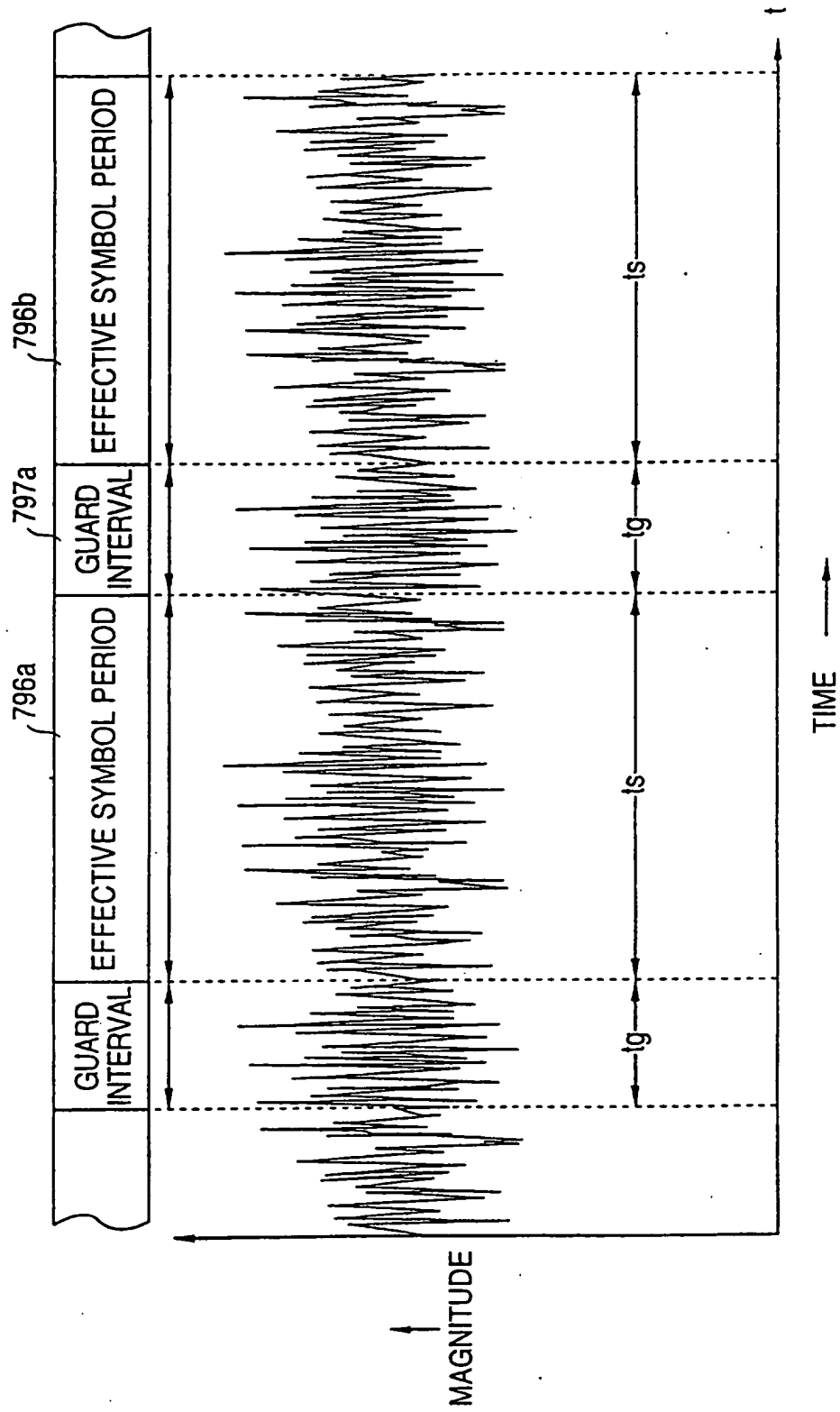
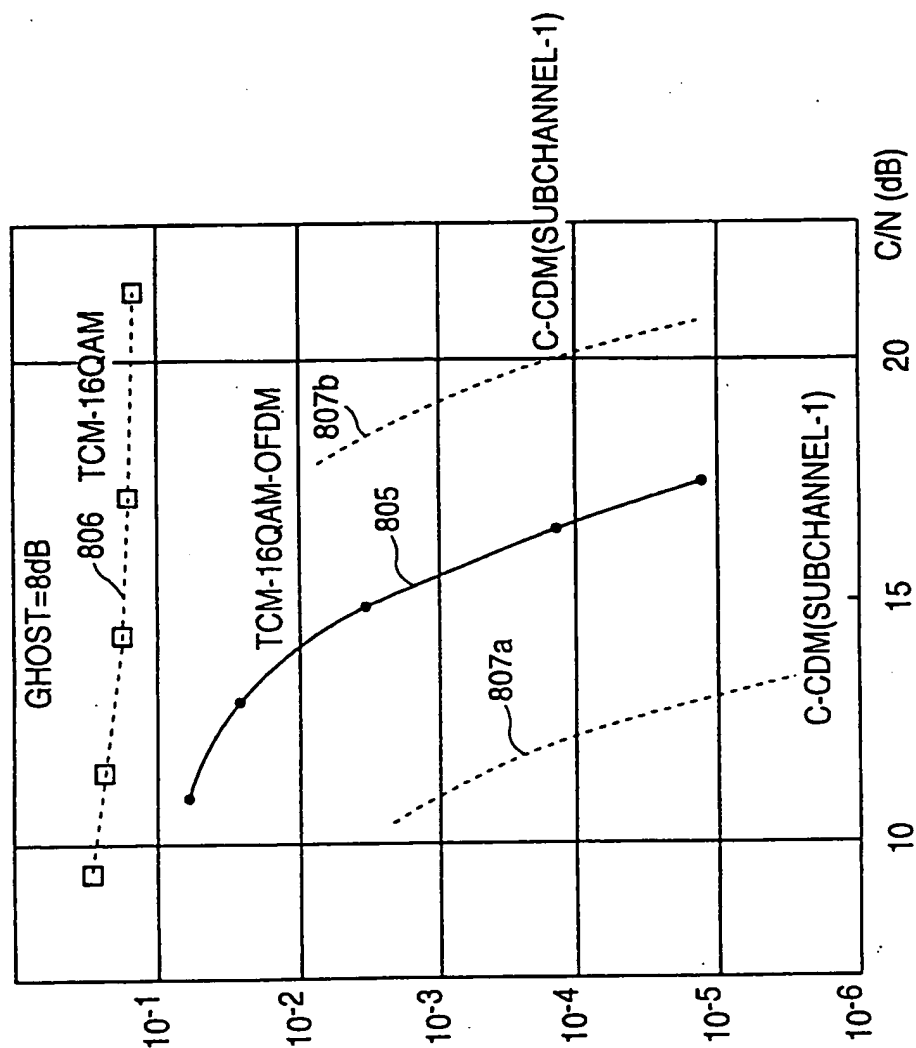
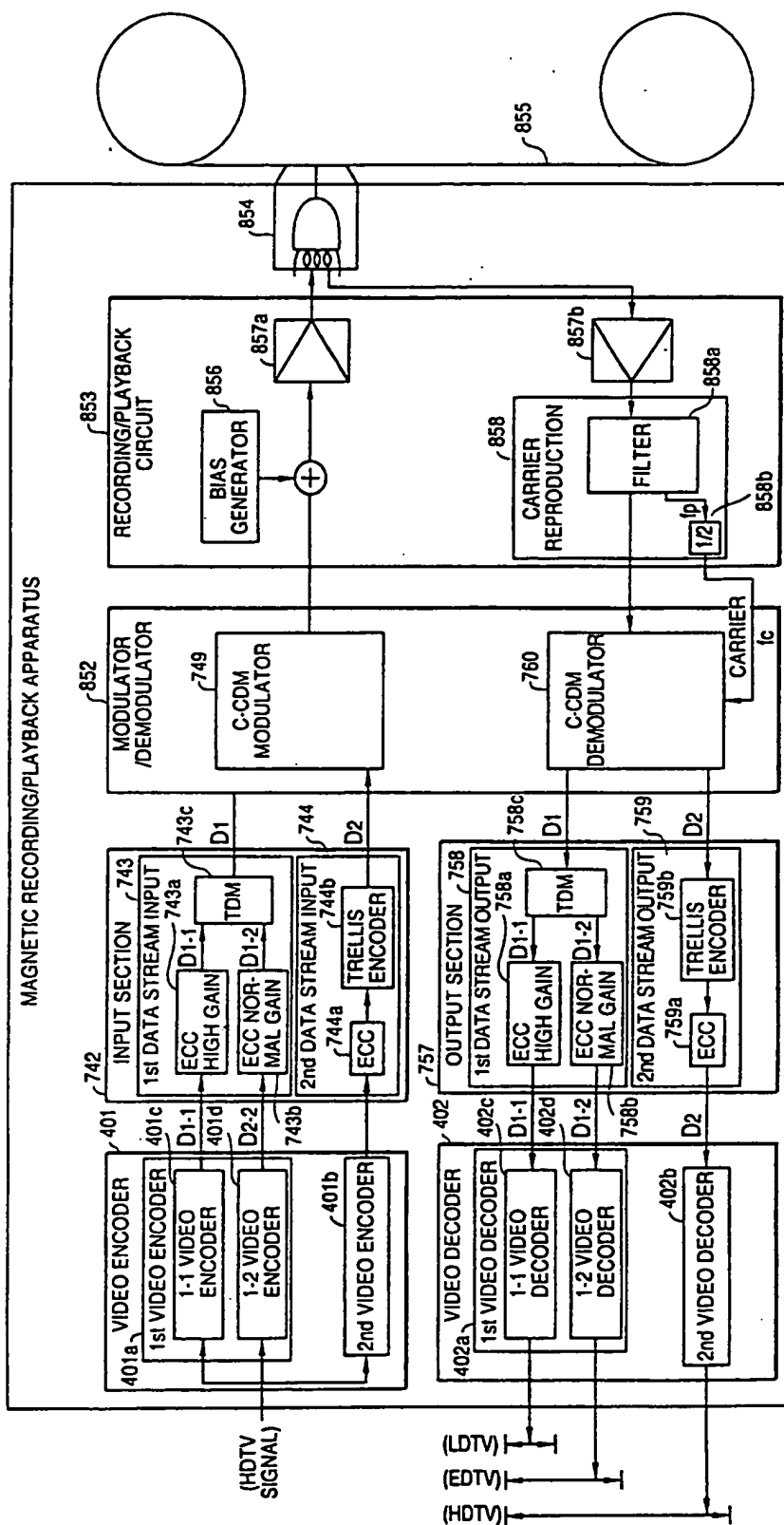


FIG. 130



855



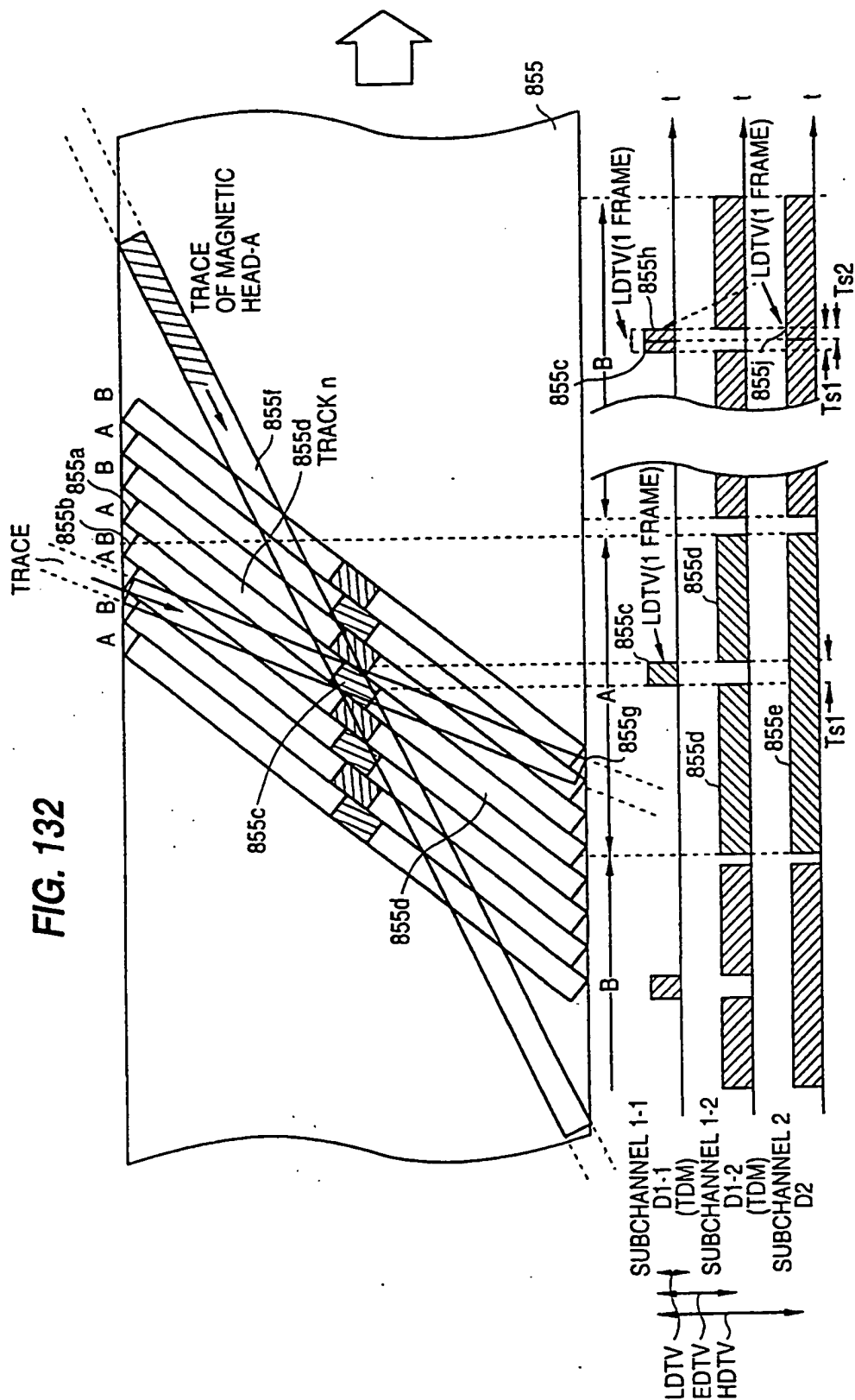


FIG. 133

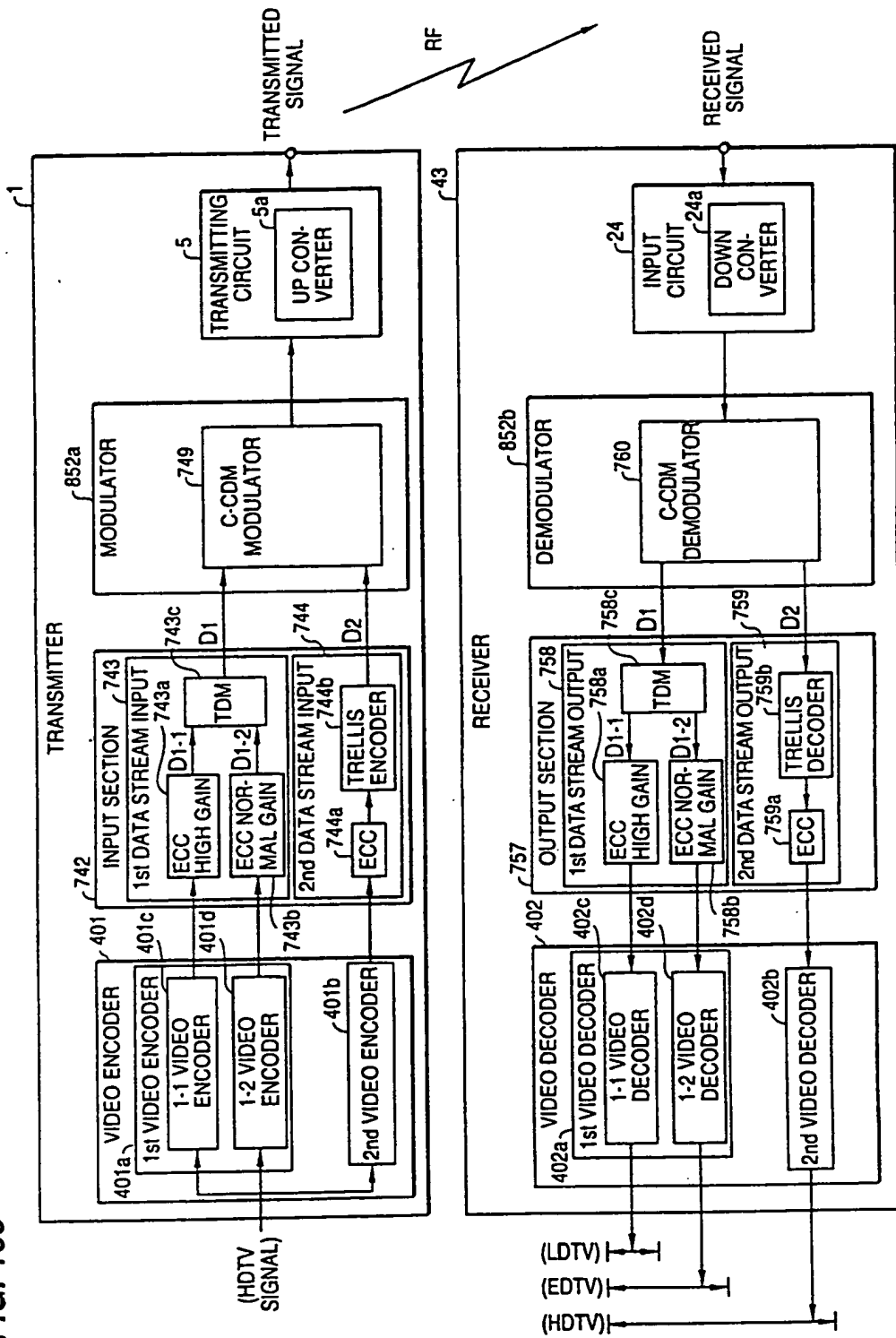


FIG. 134

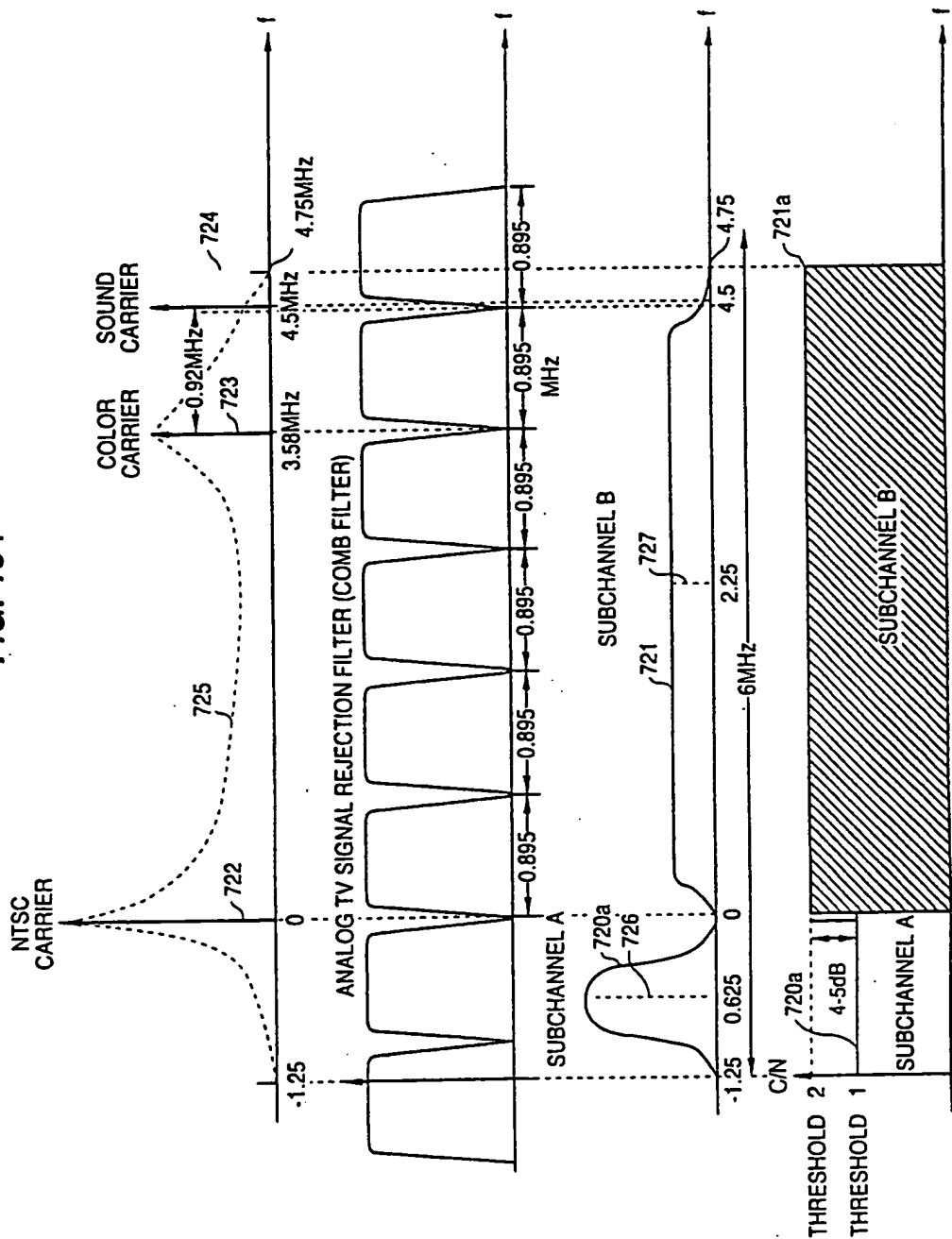


FIG. 135

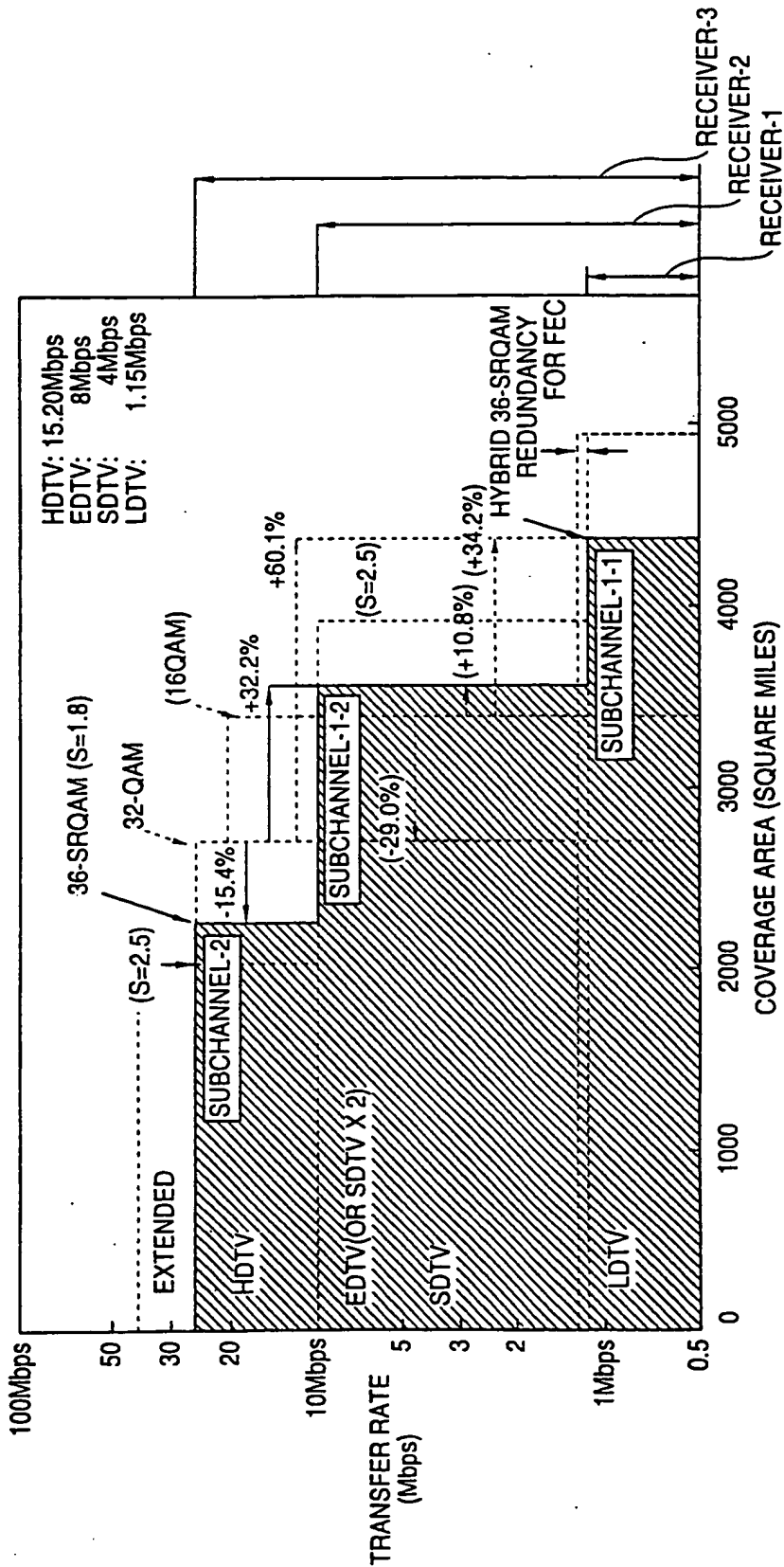


FIG. 136

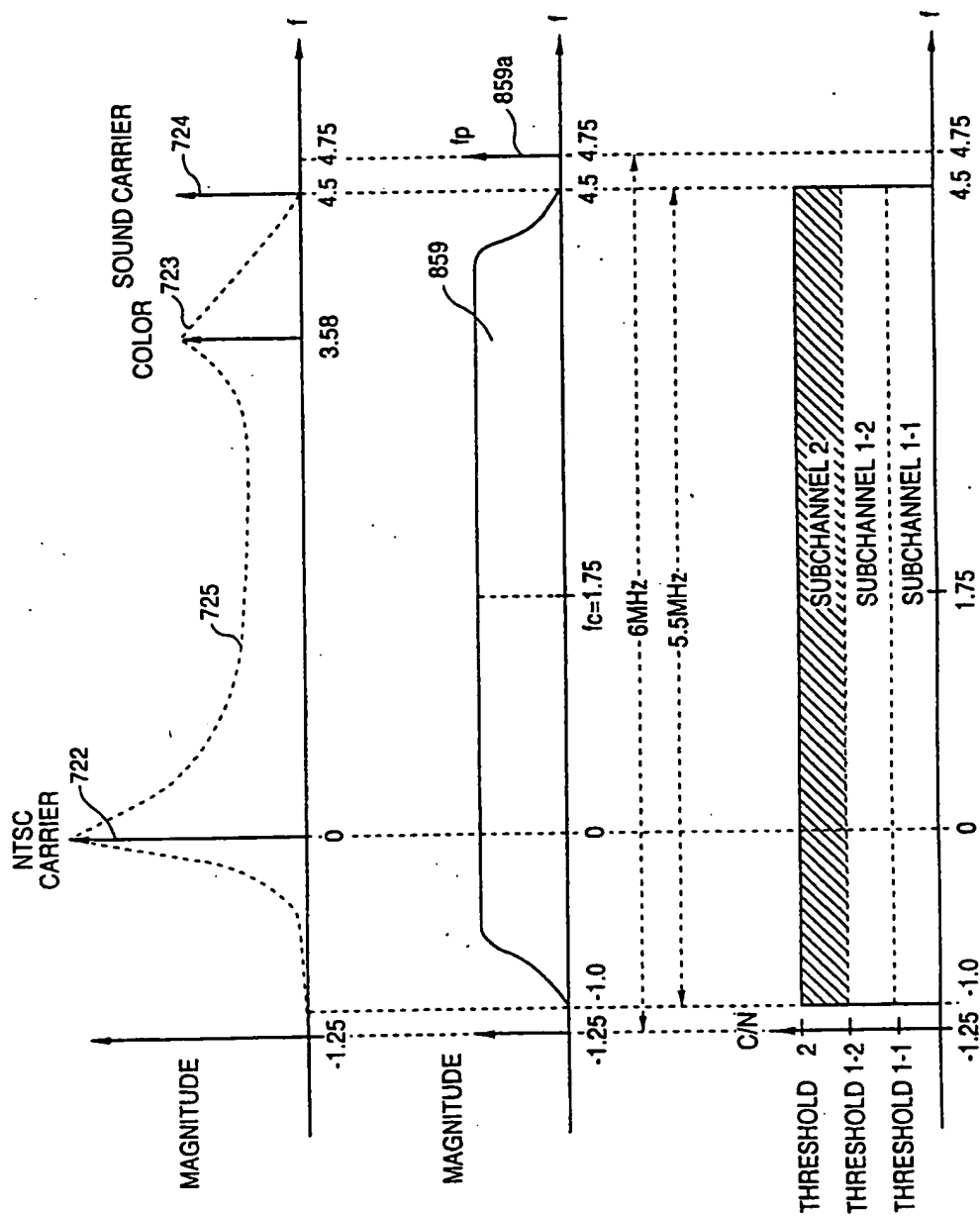


FIG. 137

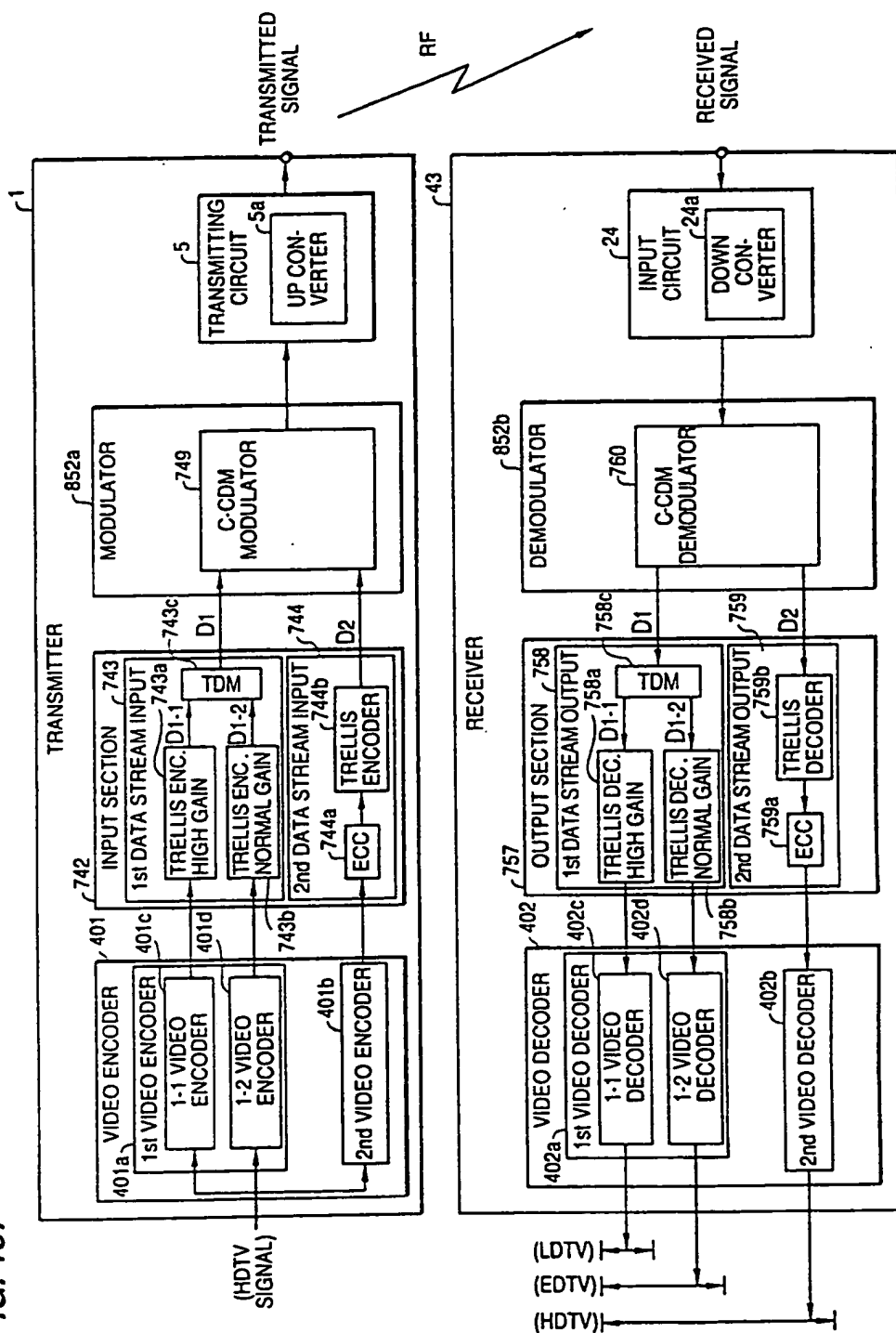


FIG. 138

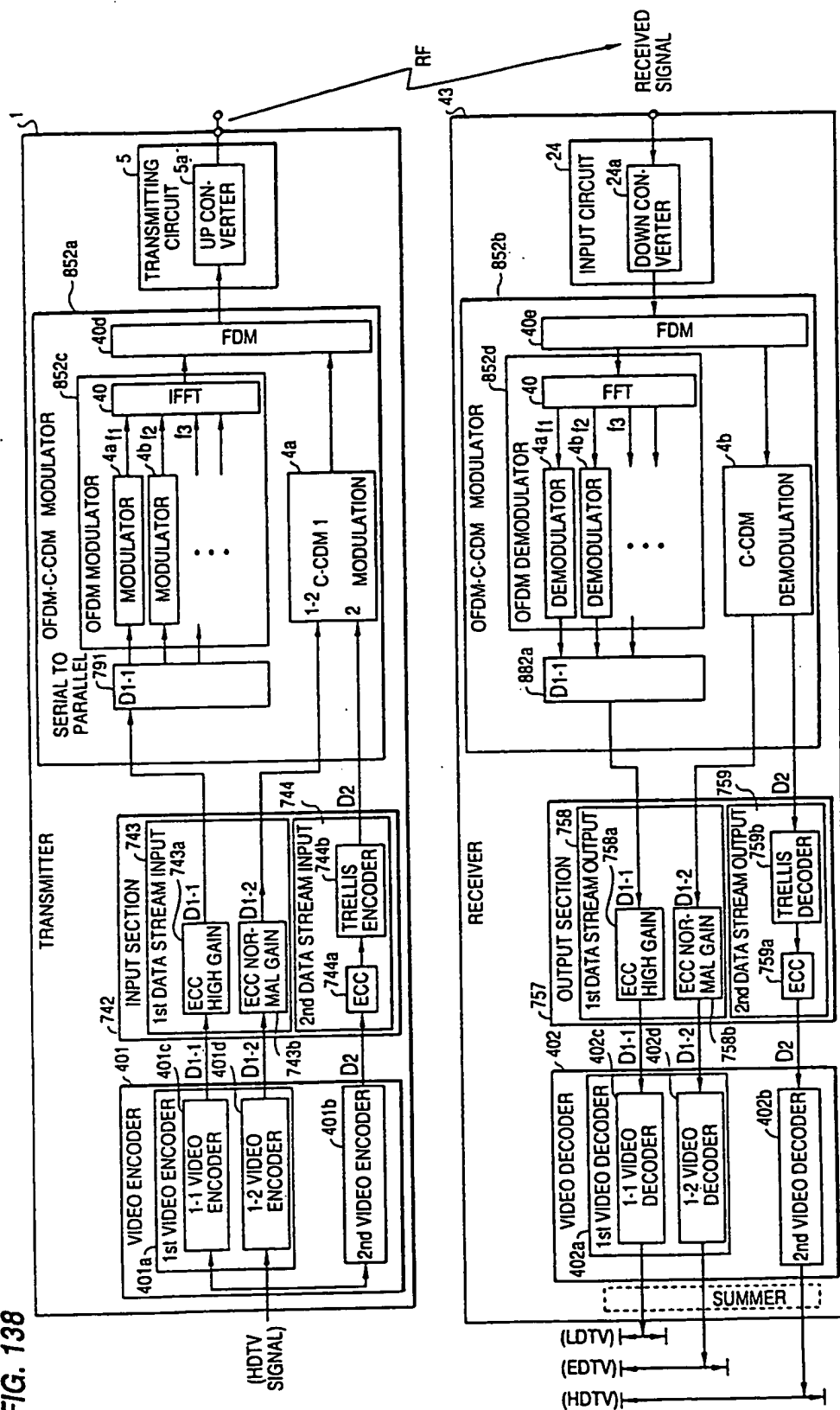


FIG. 139

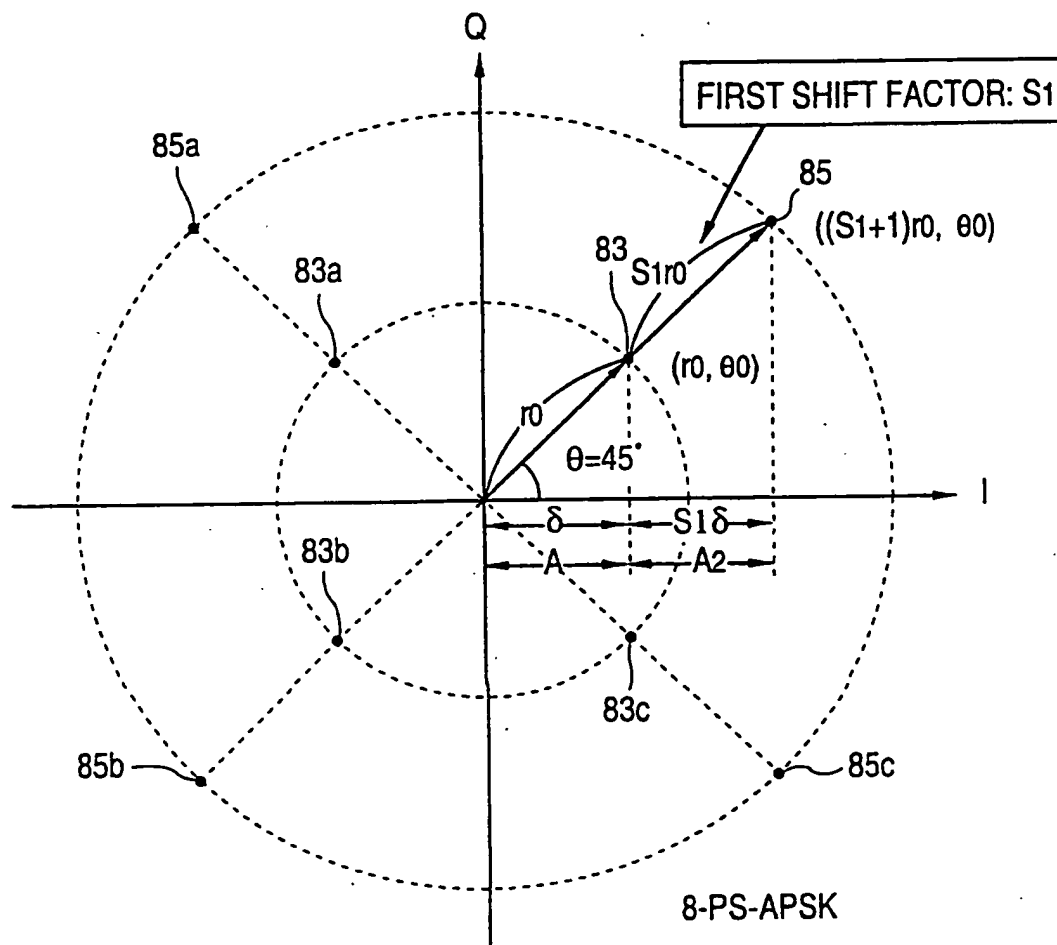


FIG. 140

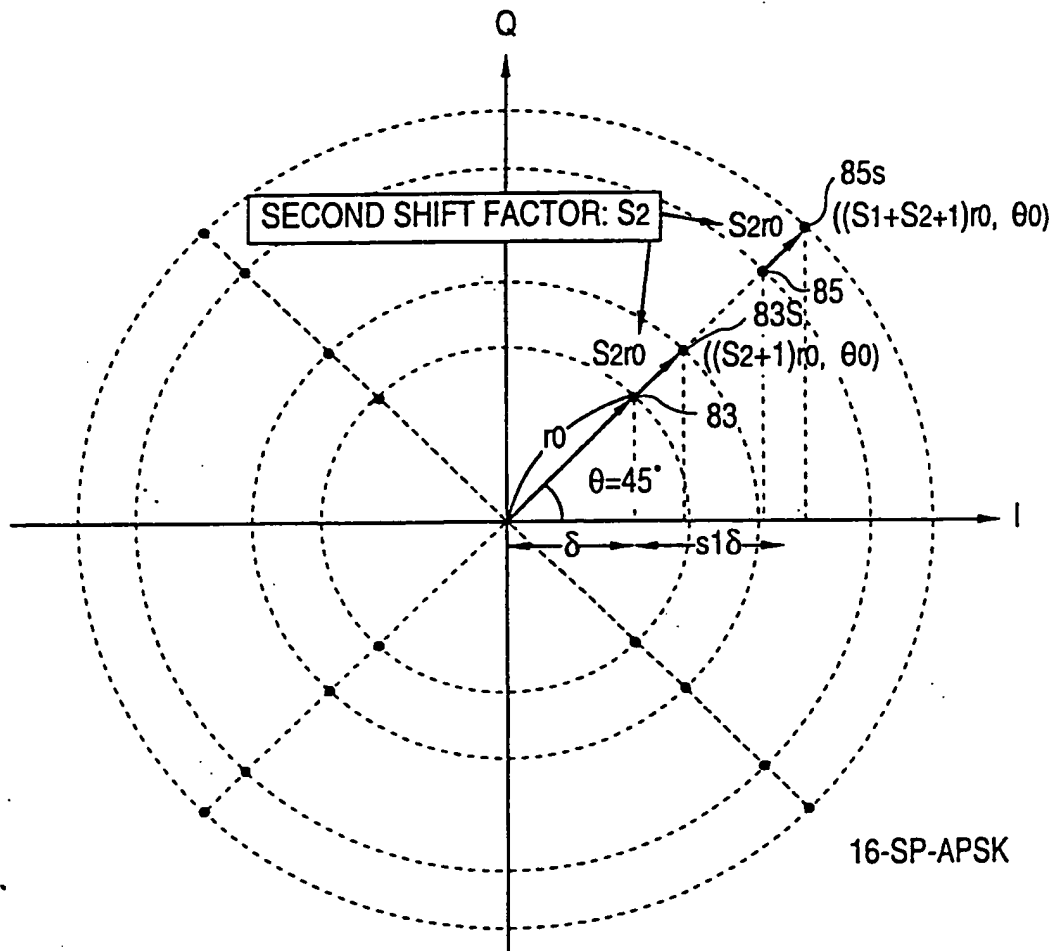


FIG. 141

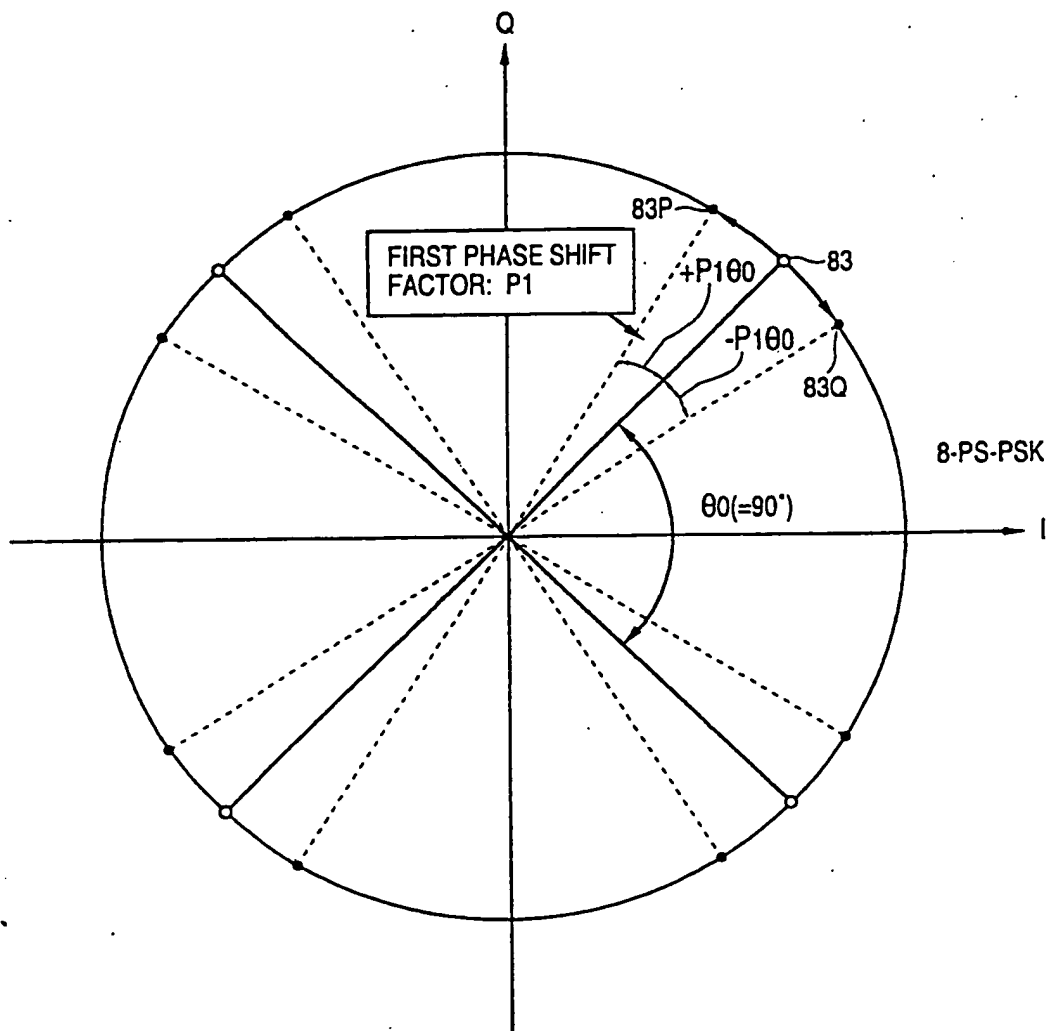


FIG. 142

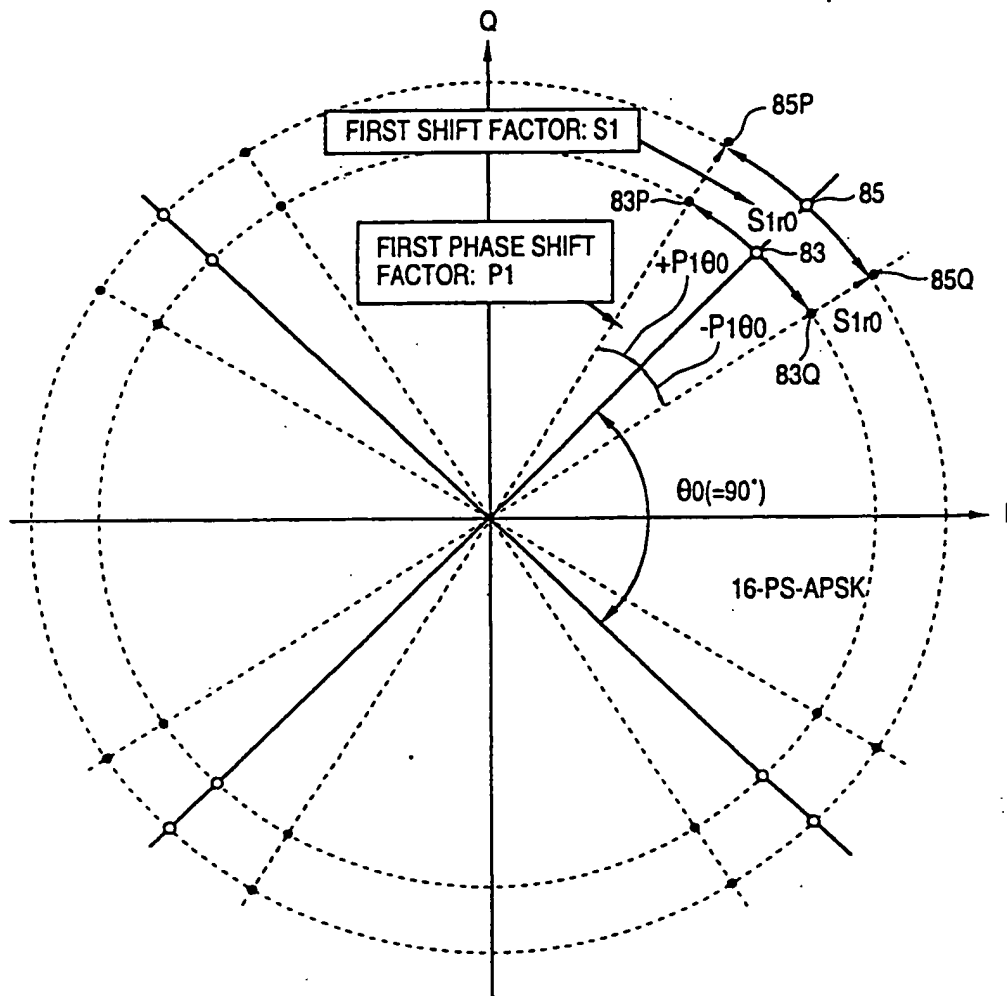


FIG. 143

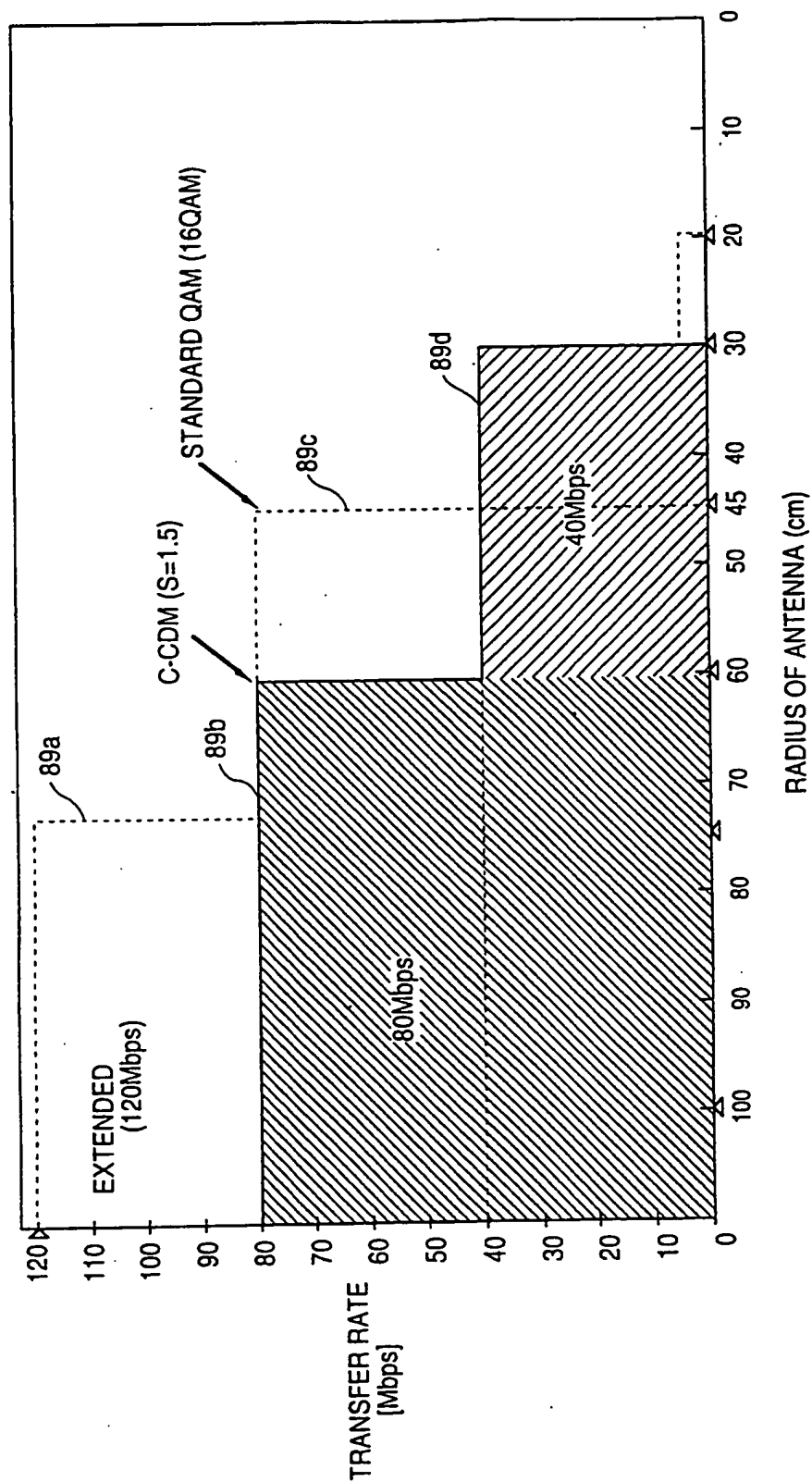
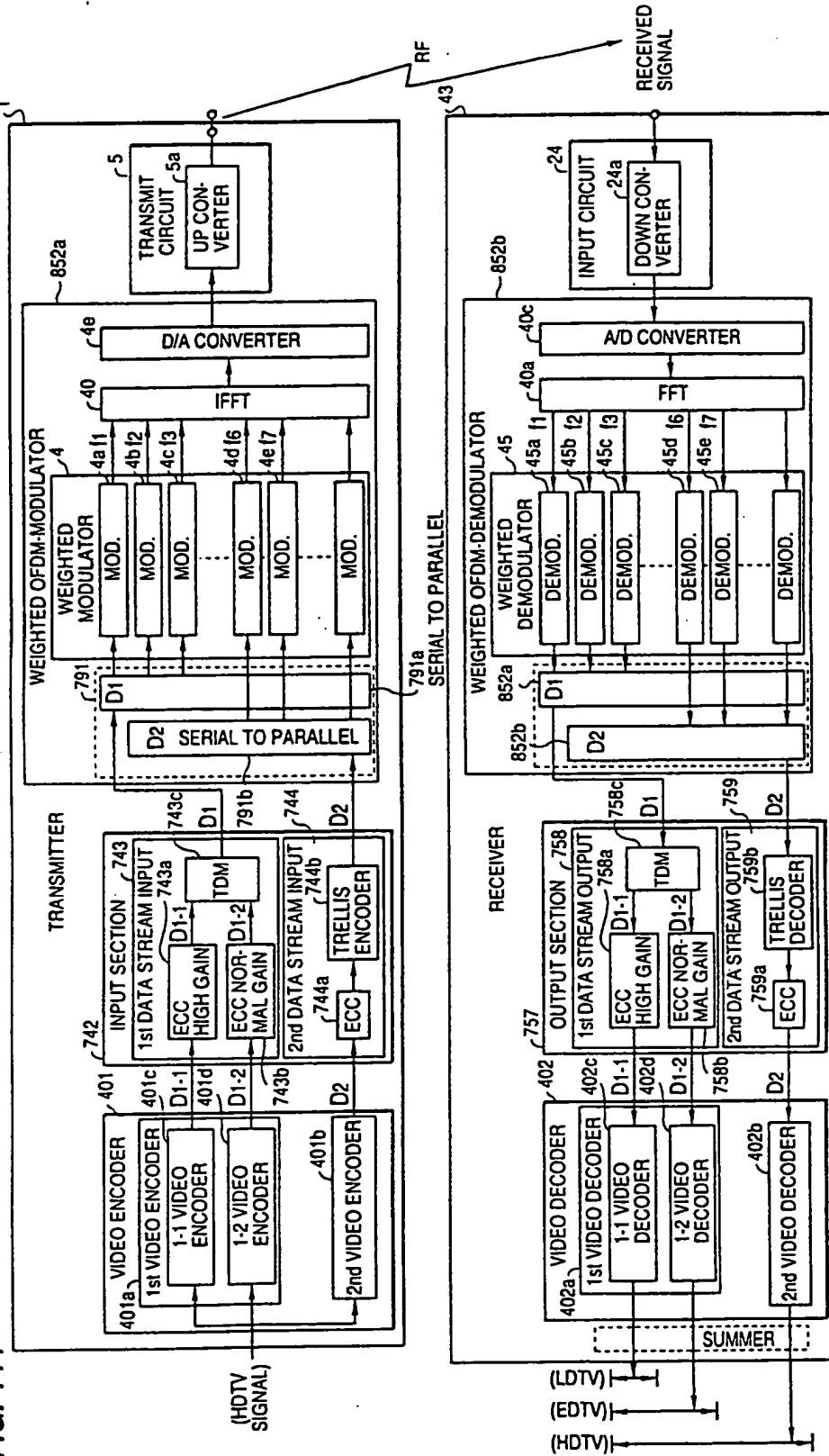


FIG. 144



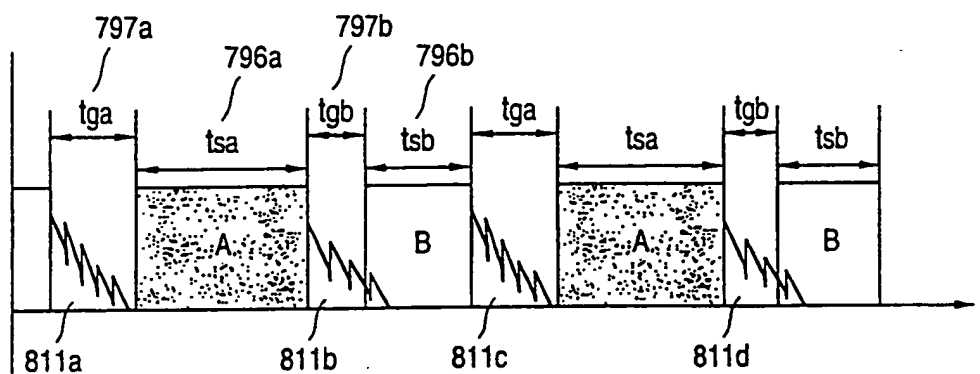
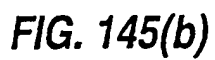
[illegible]

FIG. 146

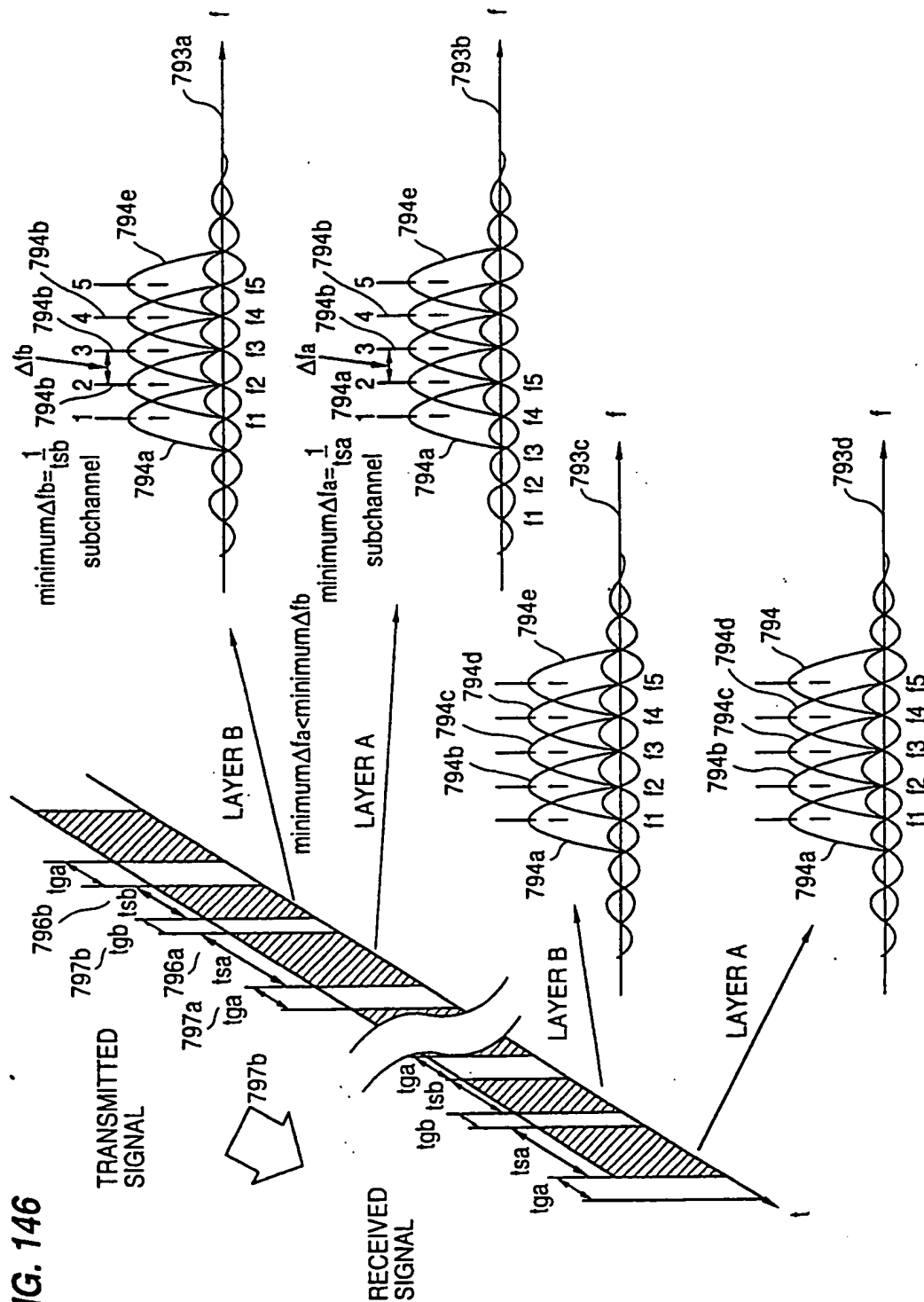


FIG. 147

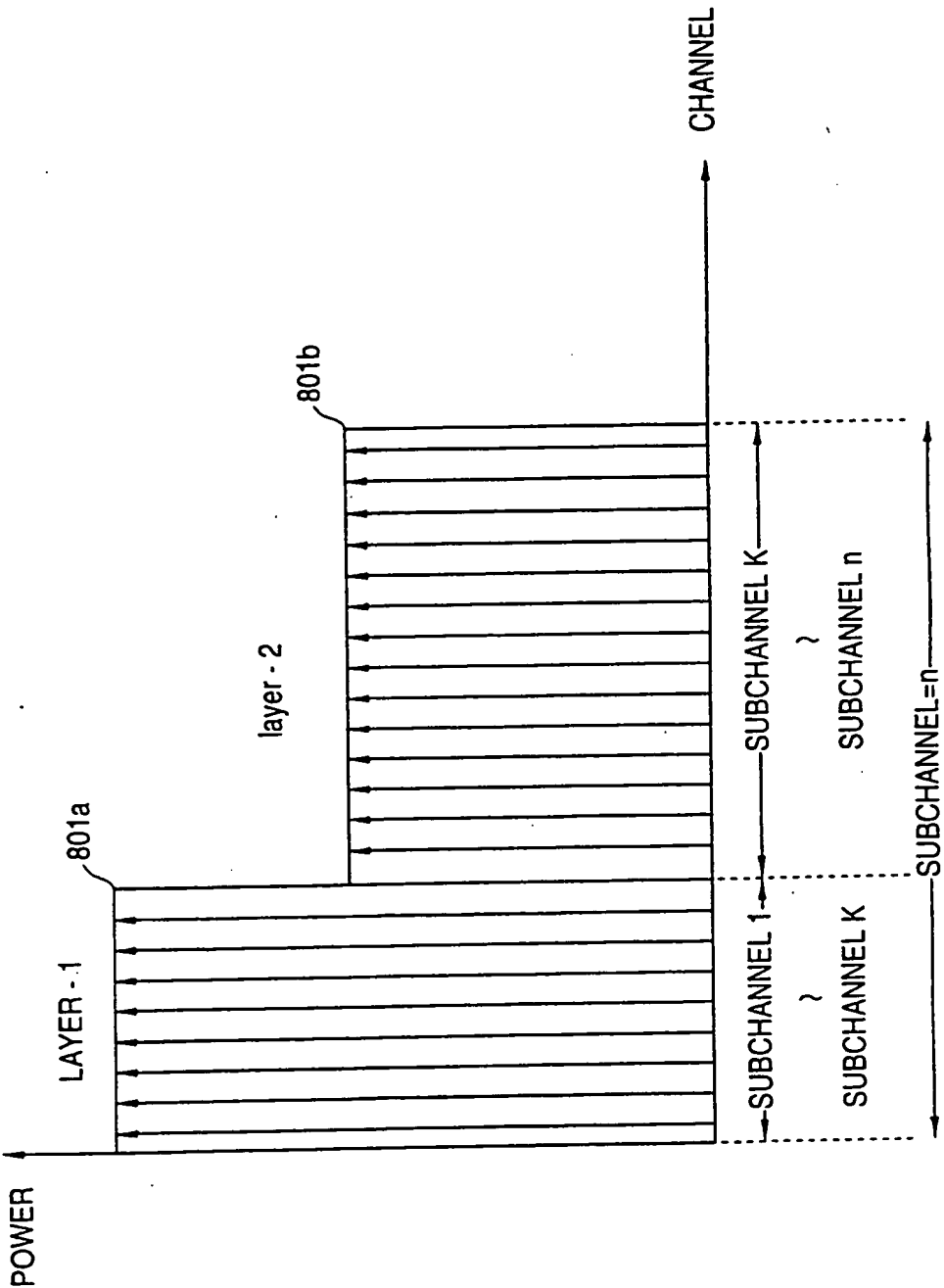
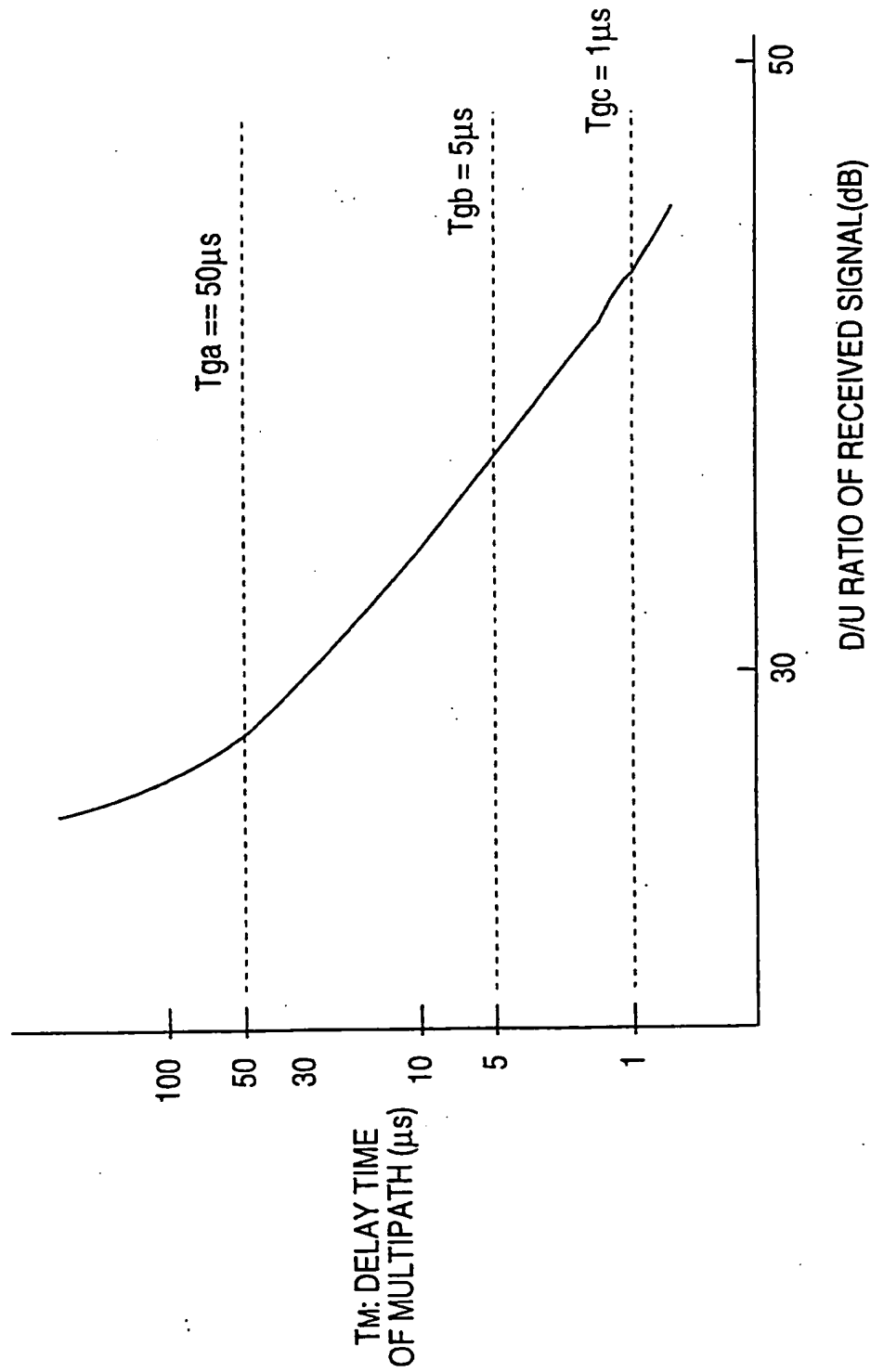


FIG. 148



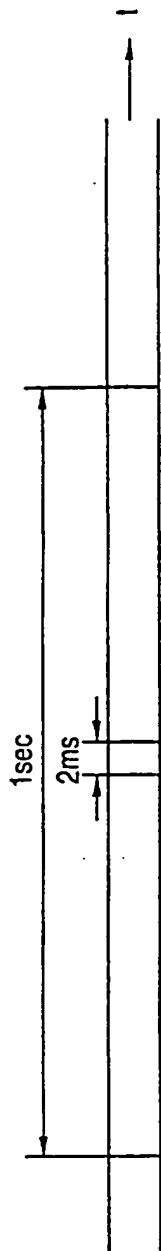


FIG. 149(a)

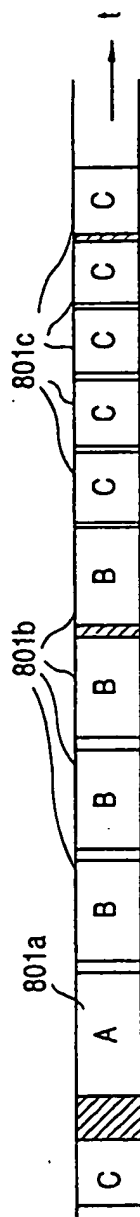


FIG. 149(b)

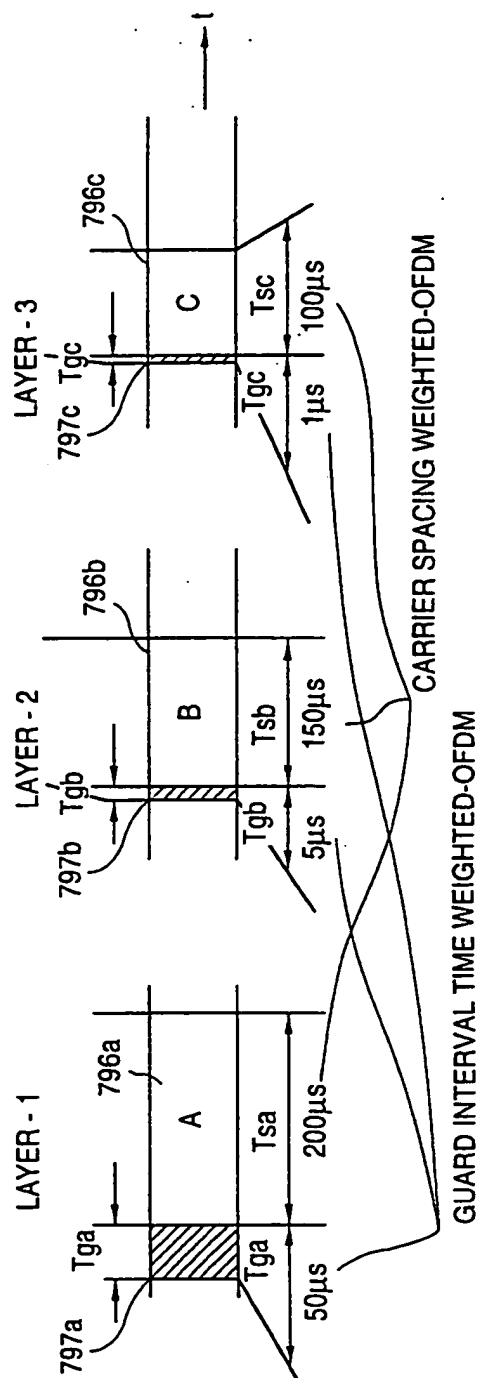


FIG. 149(c)

FIG. 150

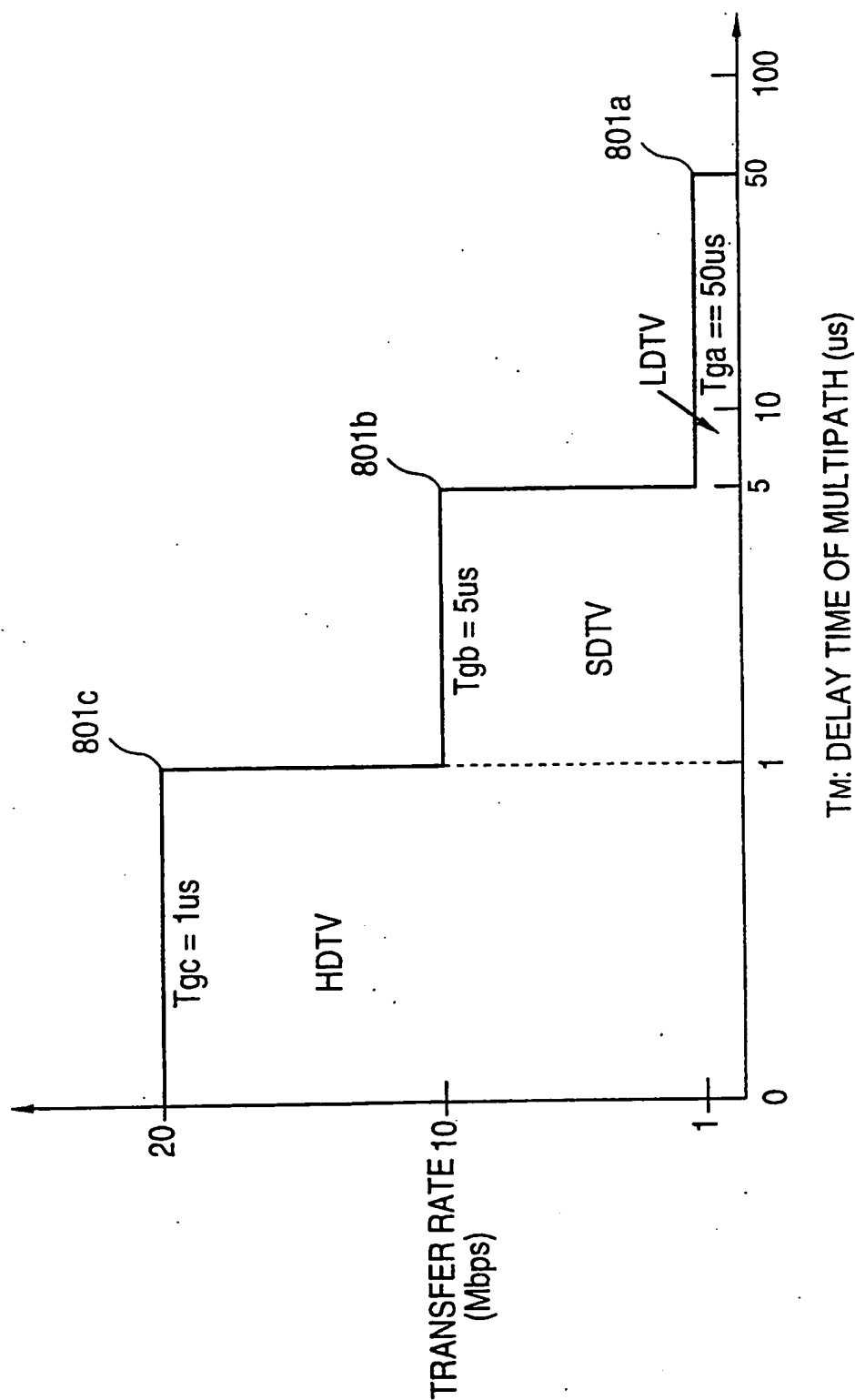


FIG. 151

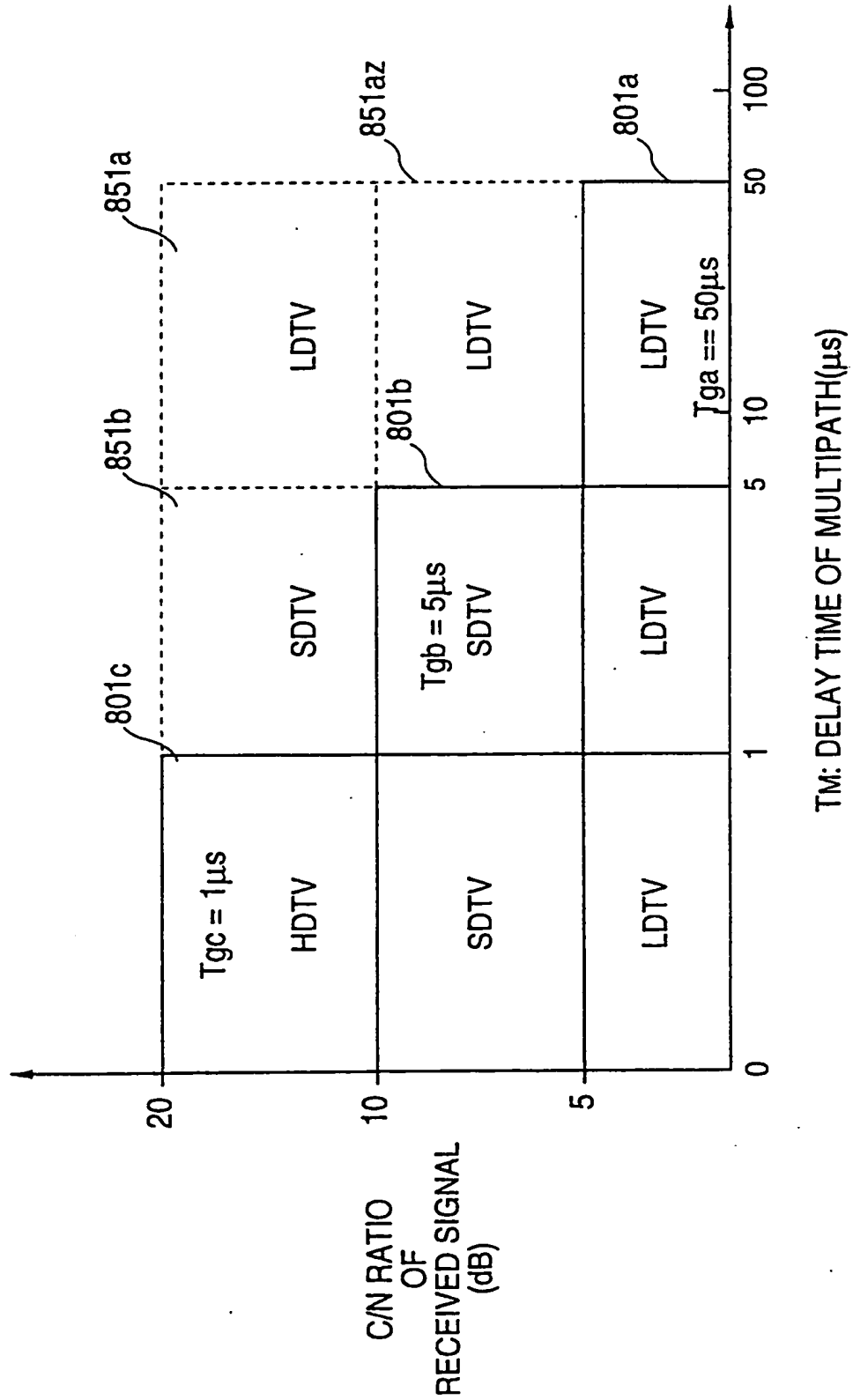


FIG. 152

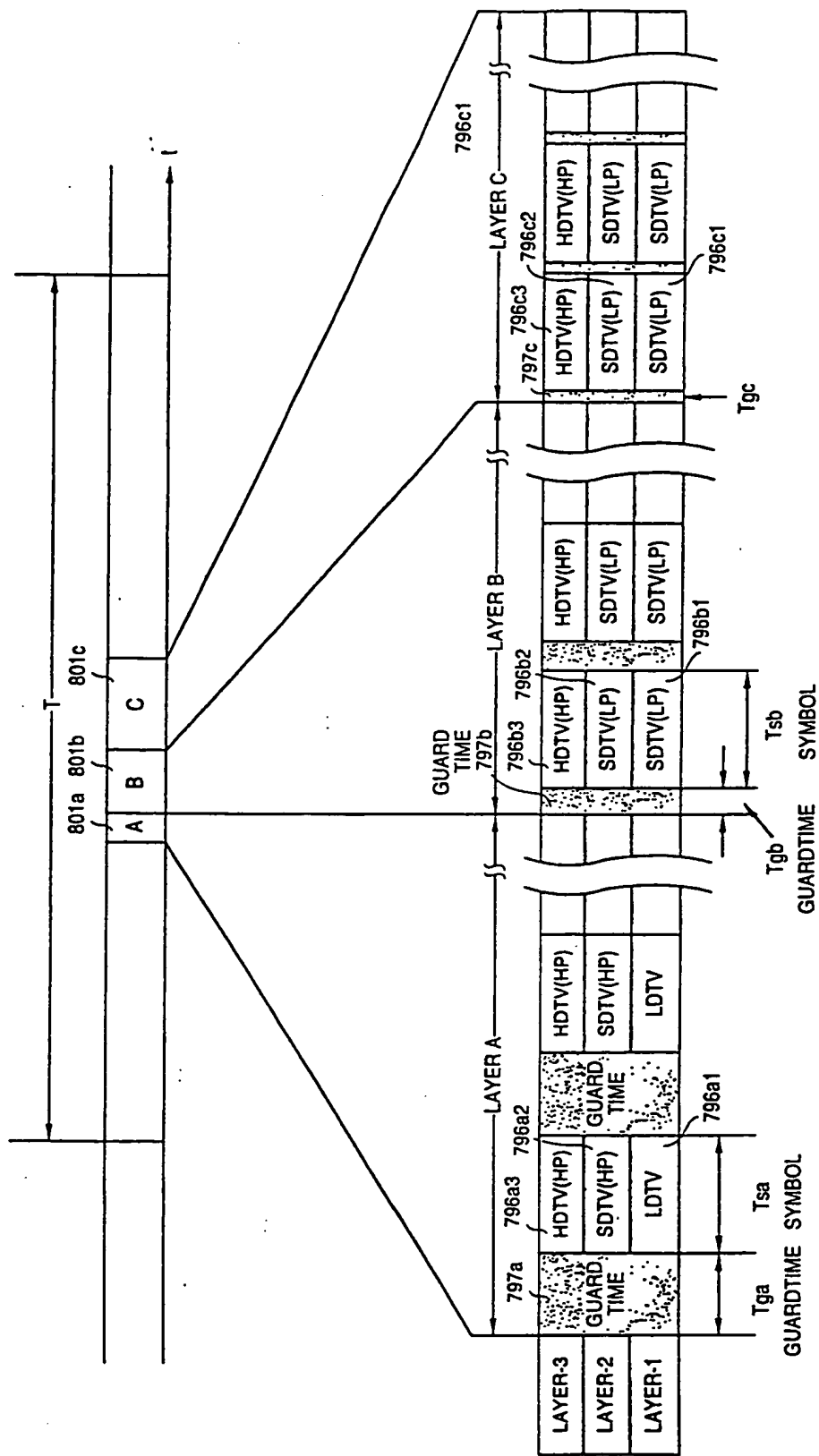
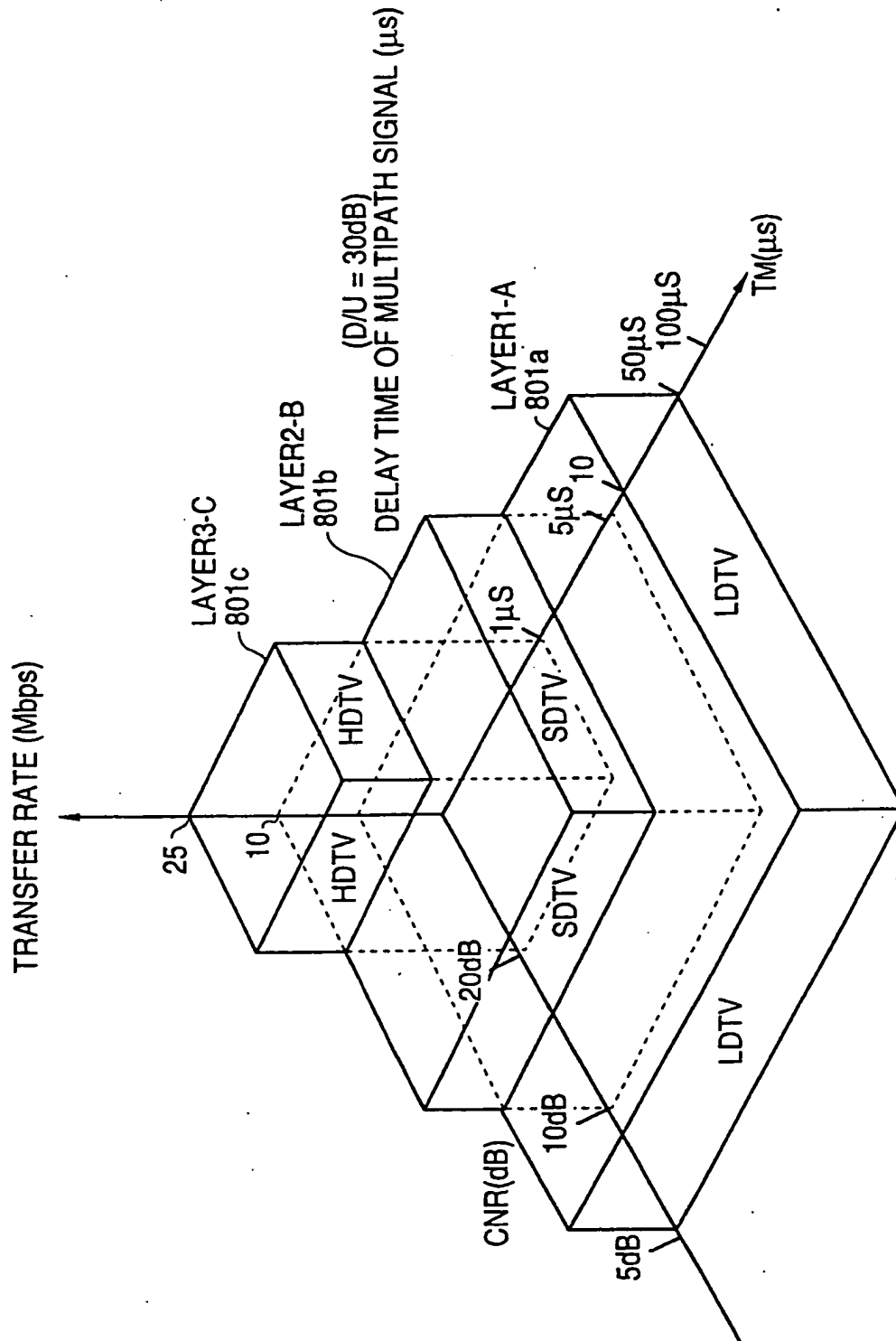


FIG. 153



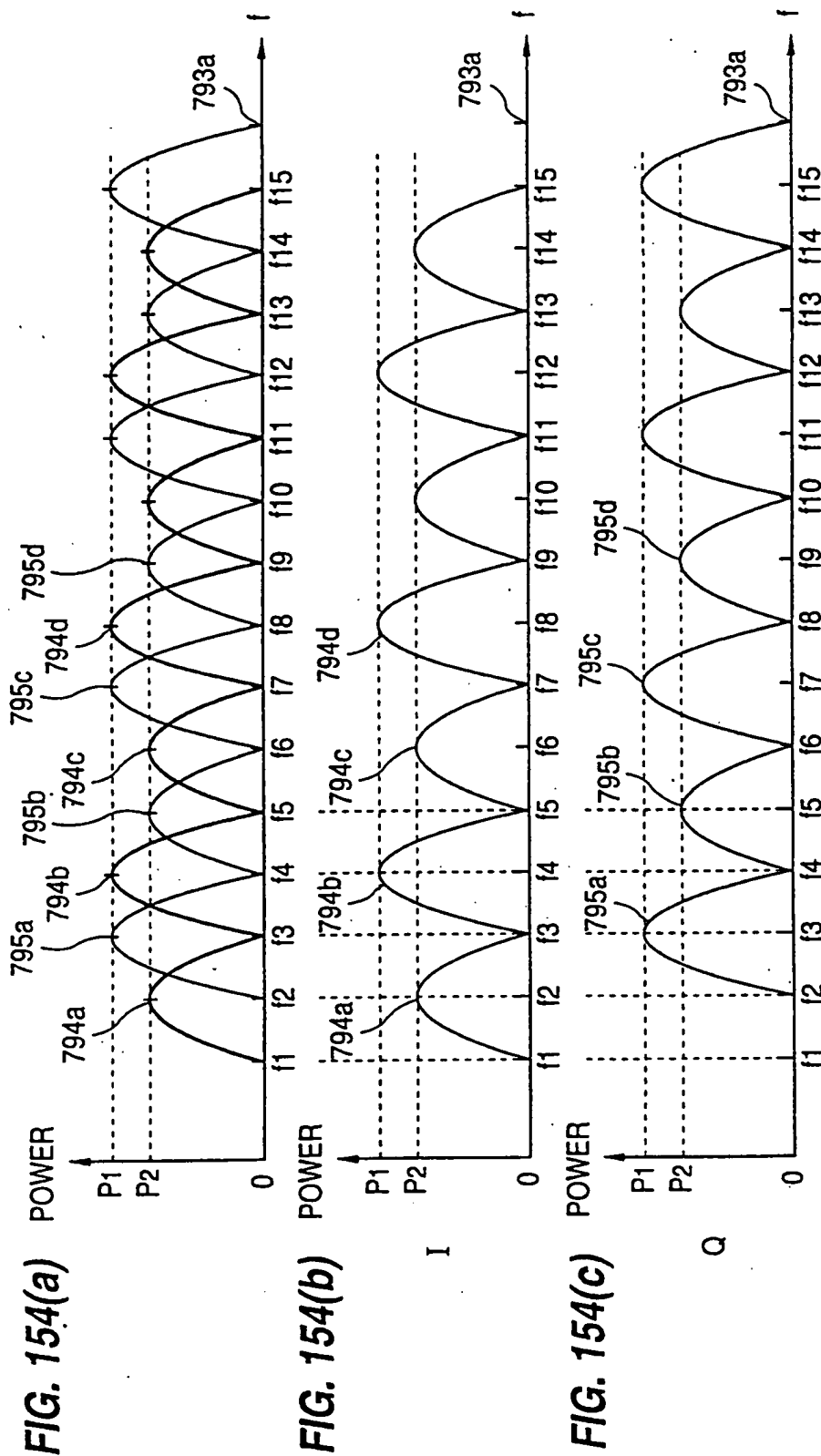


FIG. 155

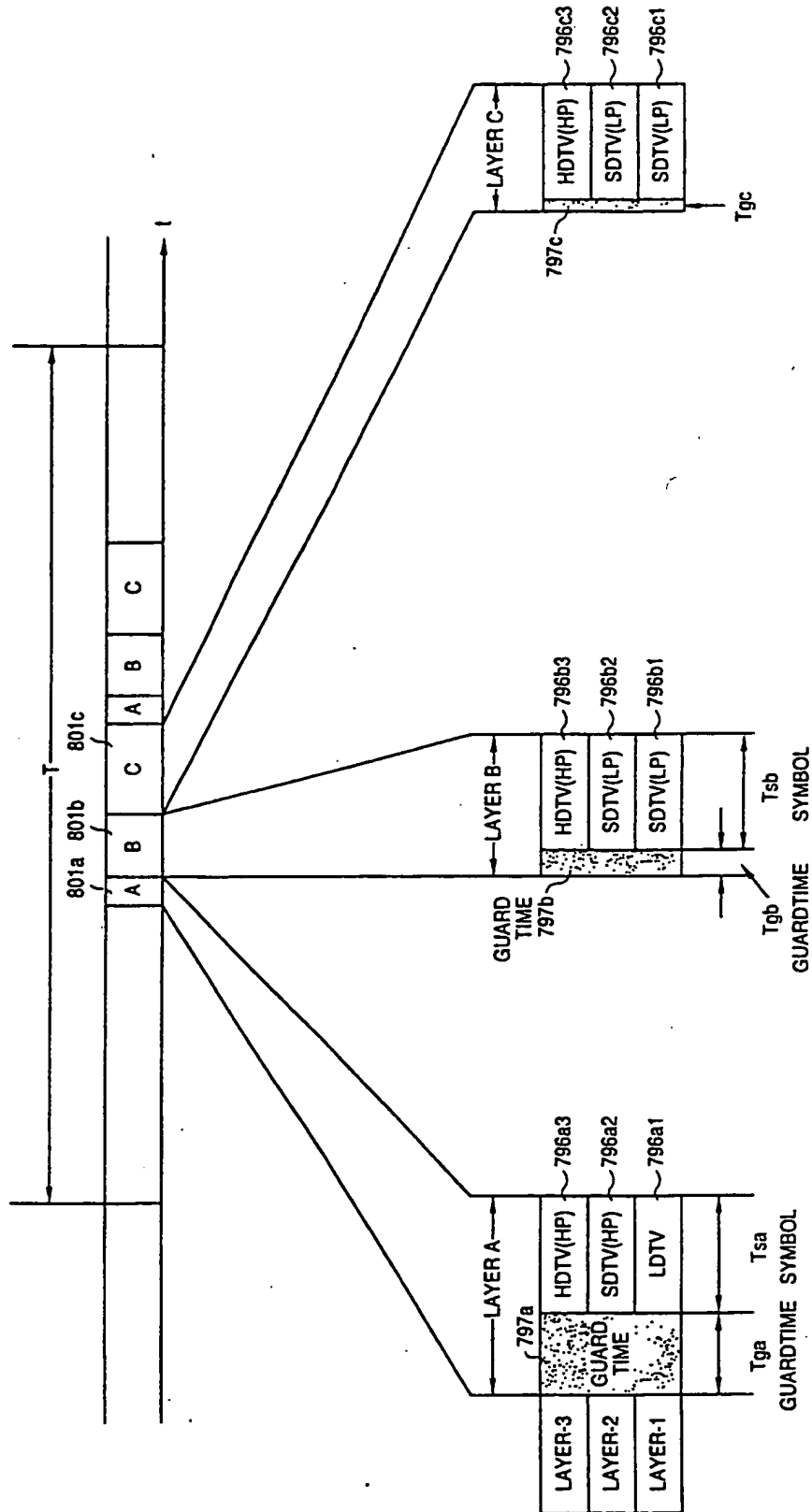


FIG. 156

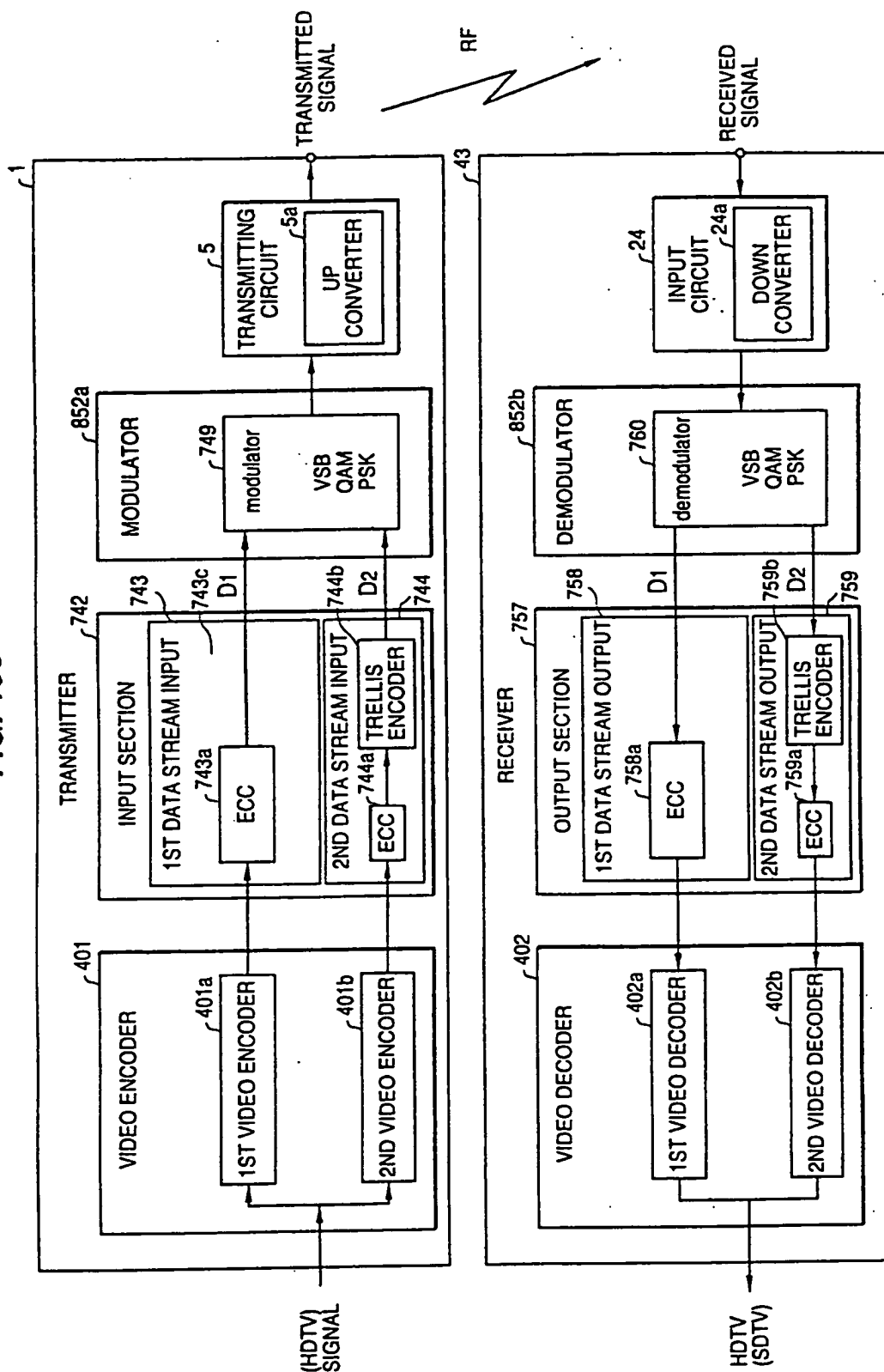


FIG. 157

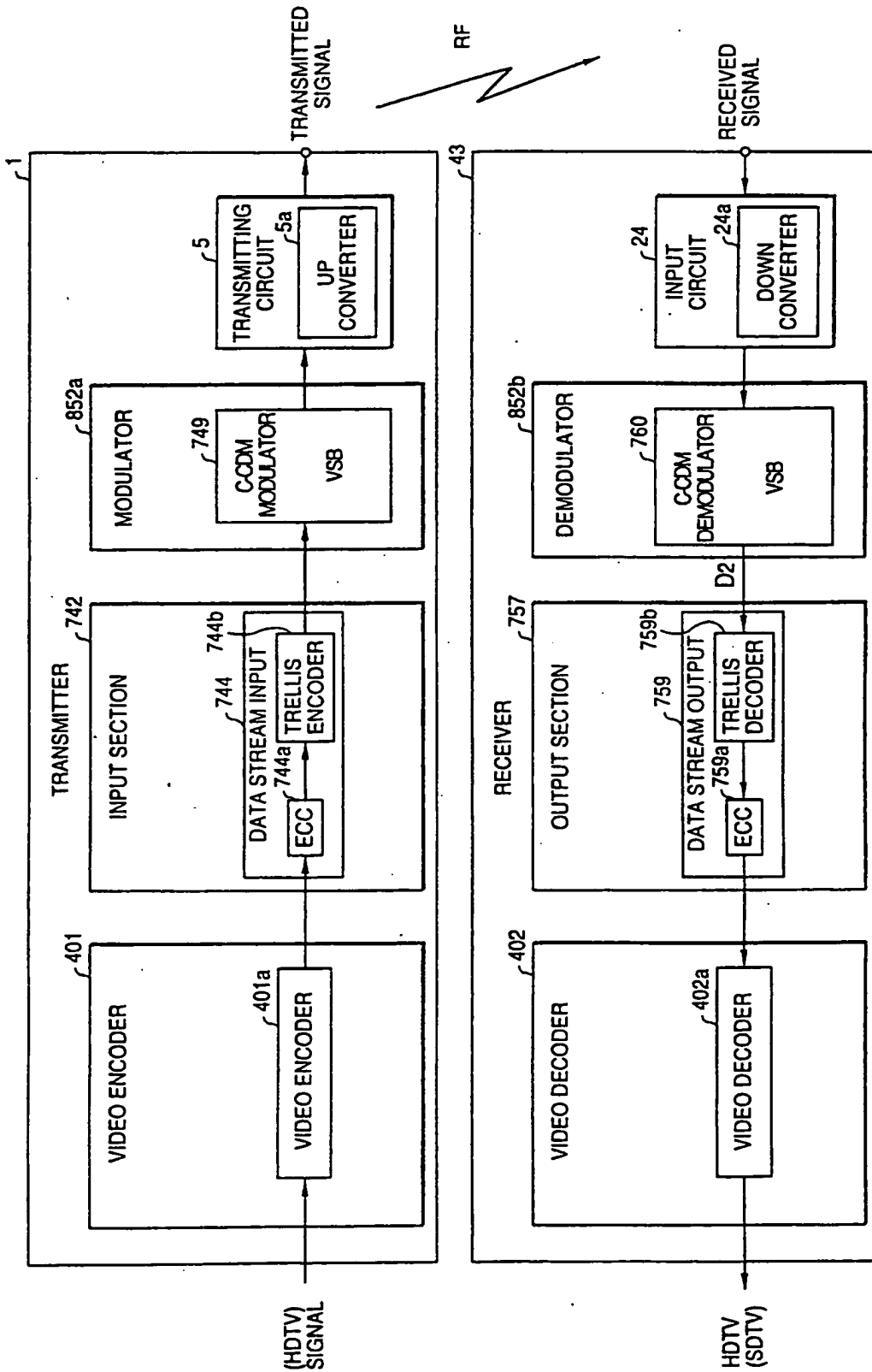
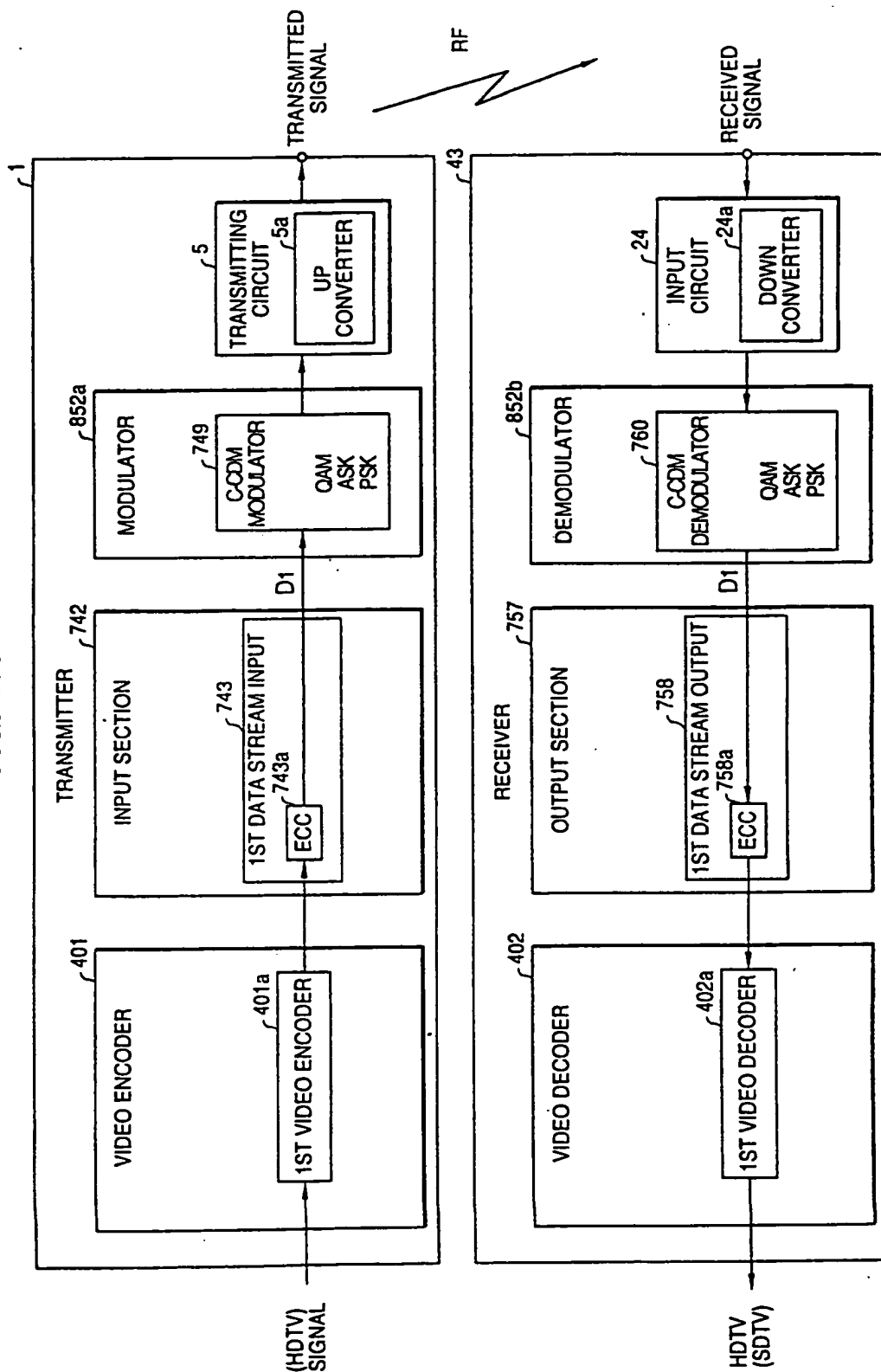


FIG. 158



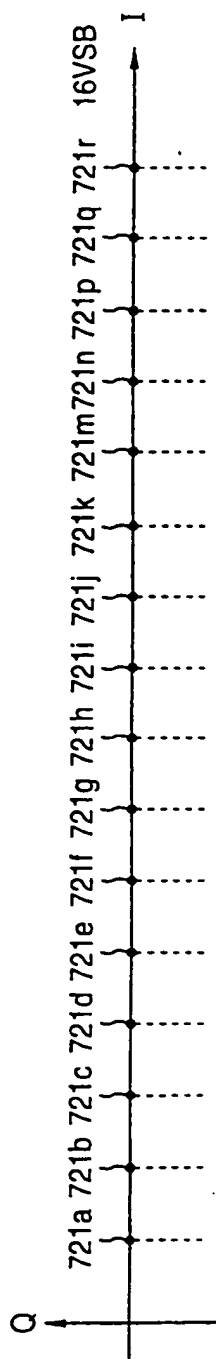


FIG. 159(a)

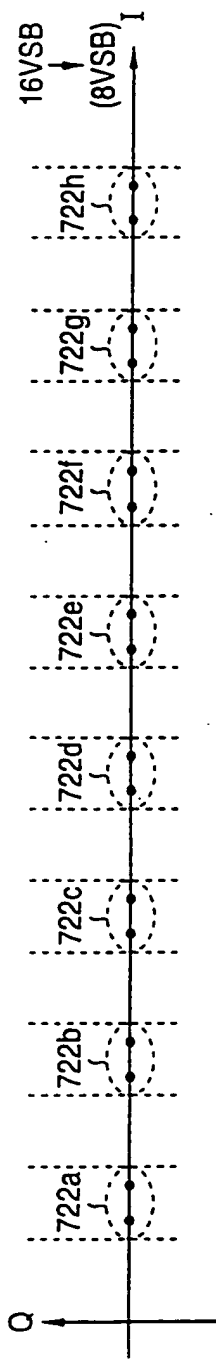


FIG. 159(b)

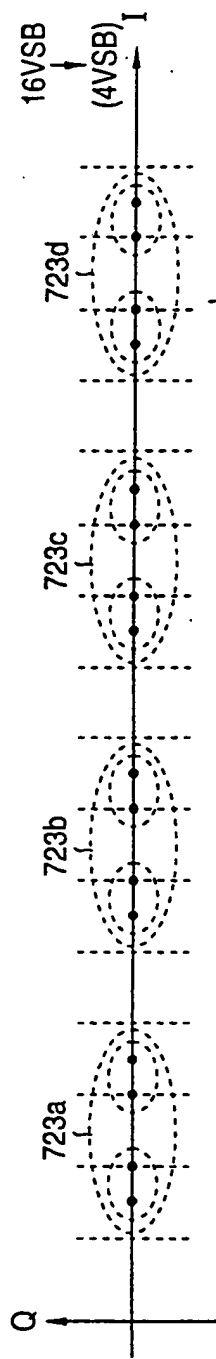


FIG. 159(c)

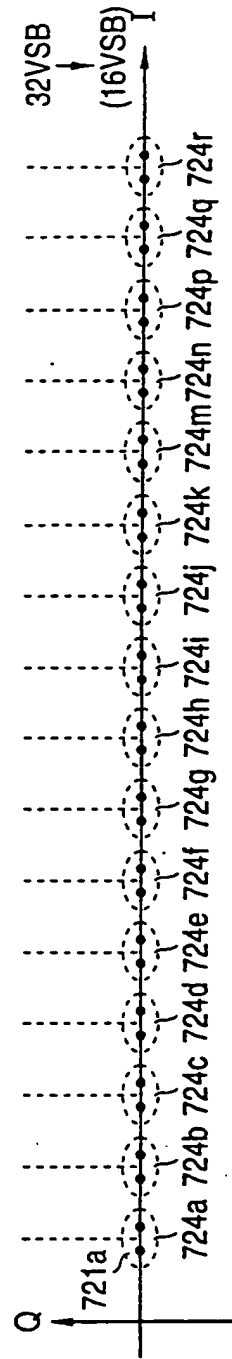


FIG. 159(d)

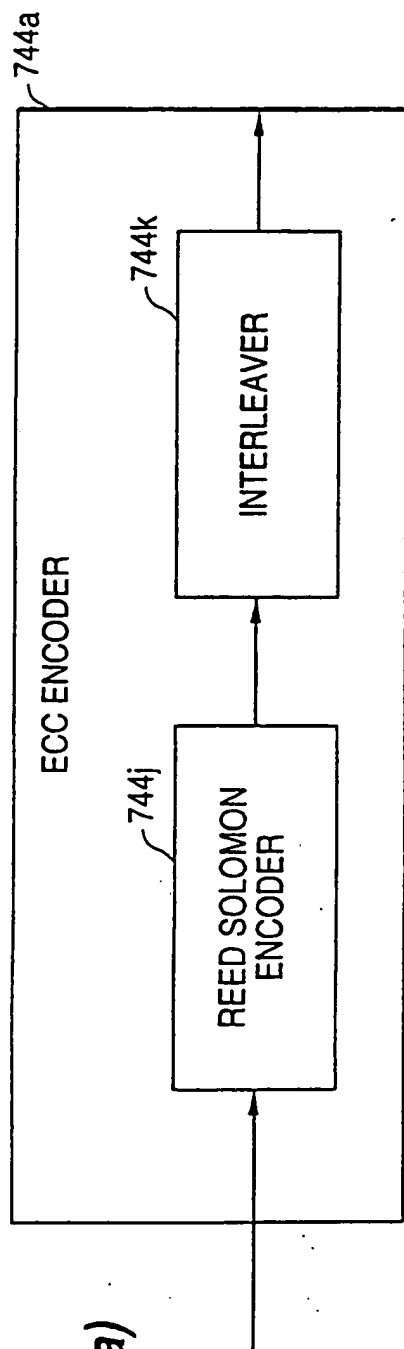


FIG. 160(a)

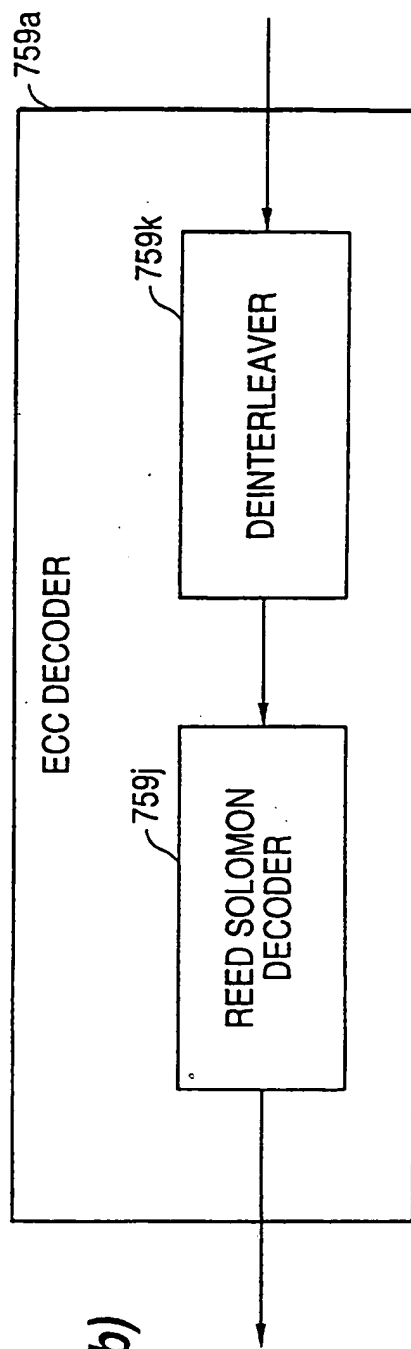


FIG. 160(b)

FIG. 161

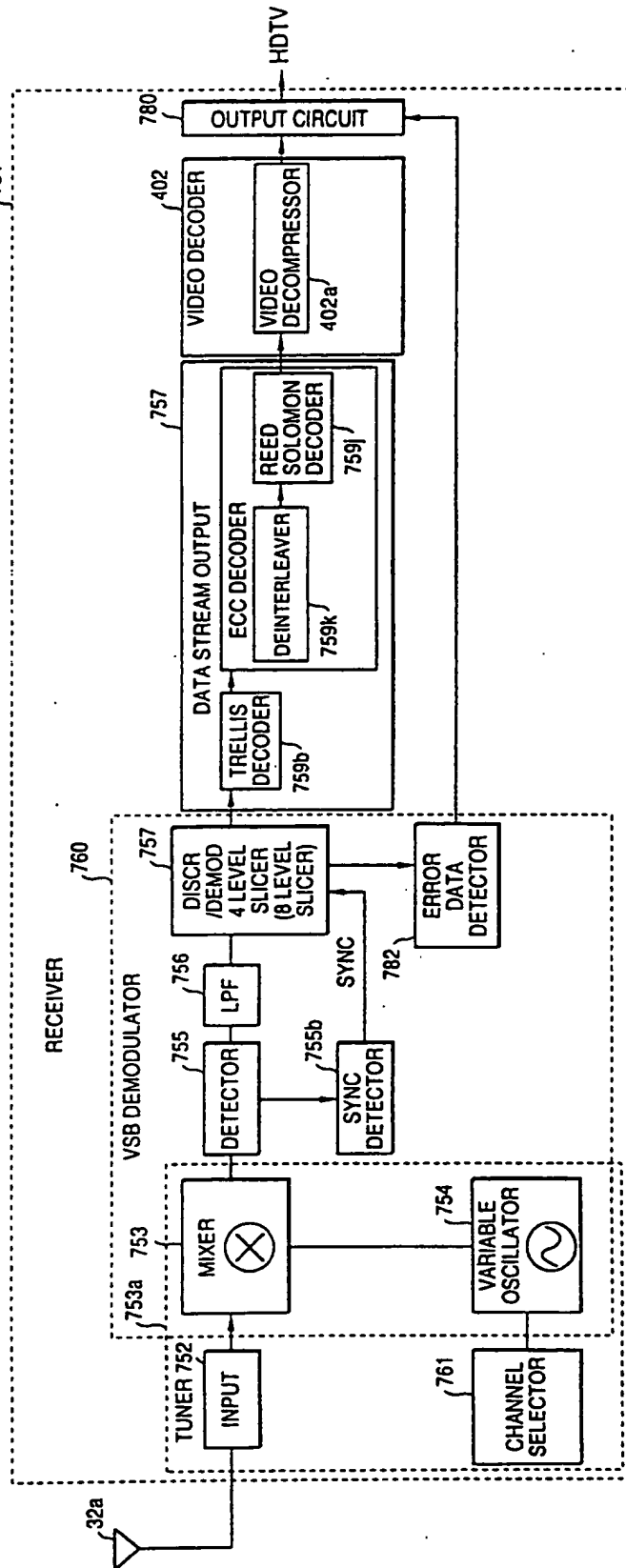


FIG. 162

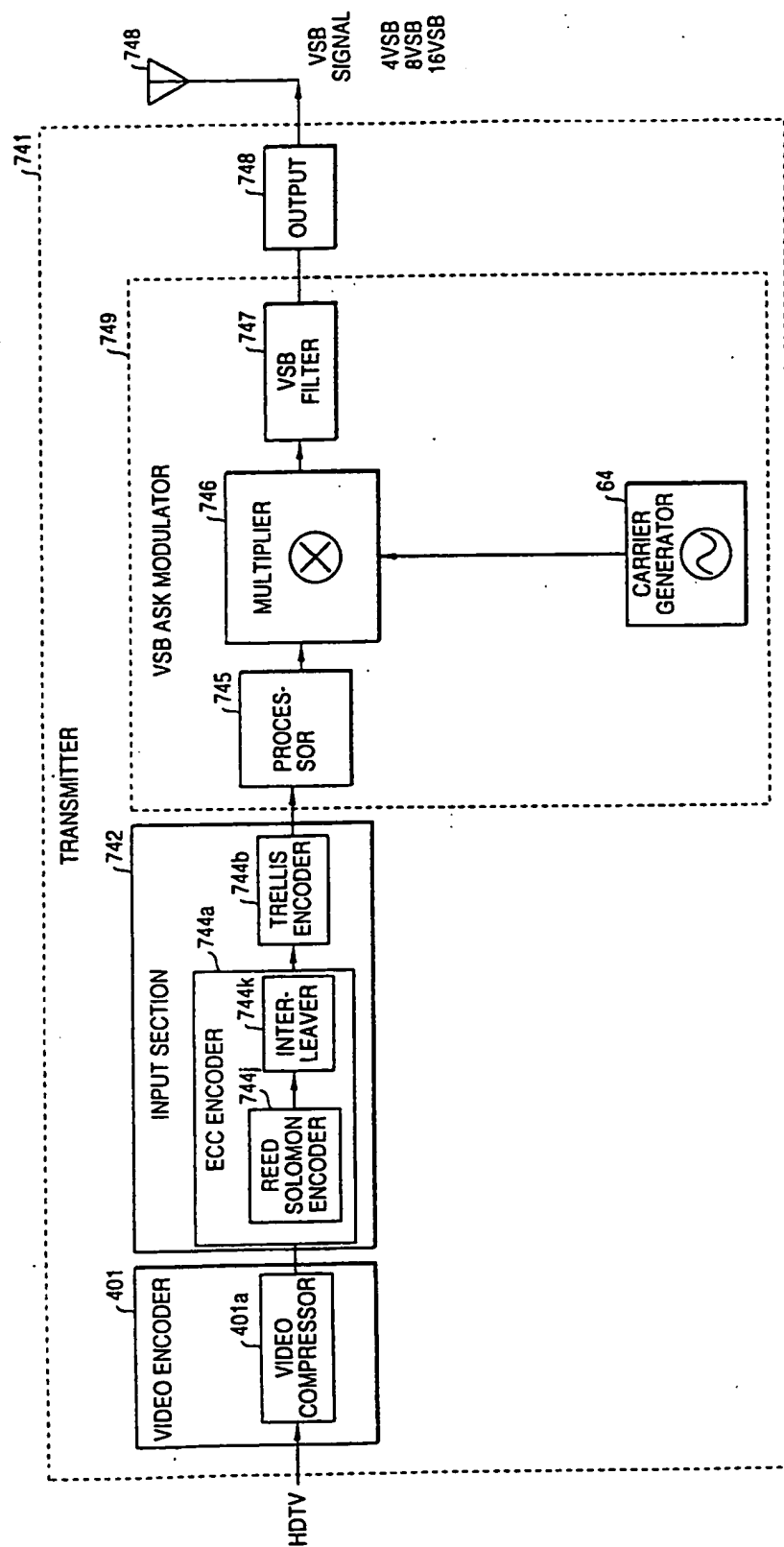


FIG. 163

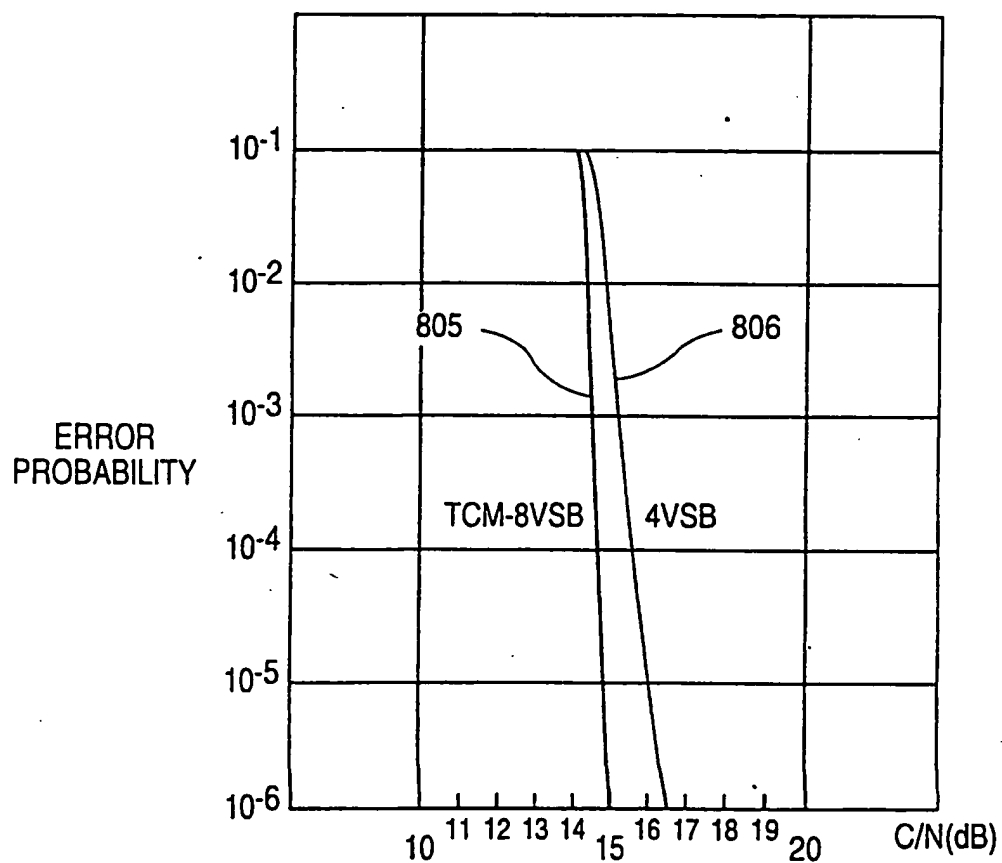


FIG. 164

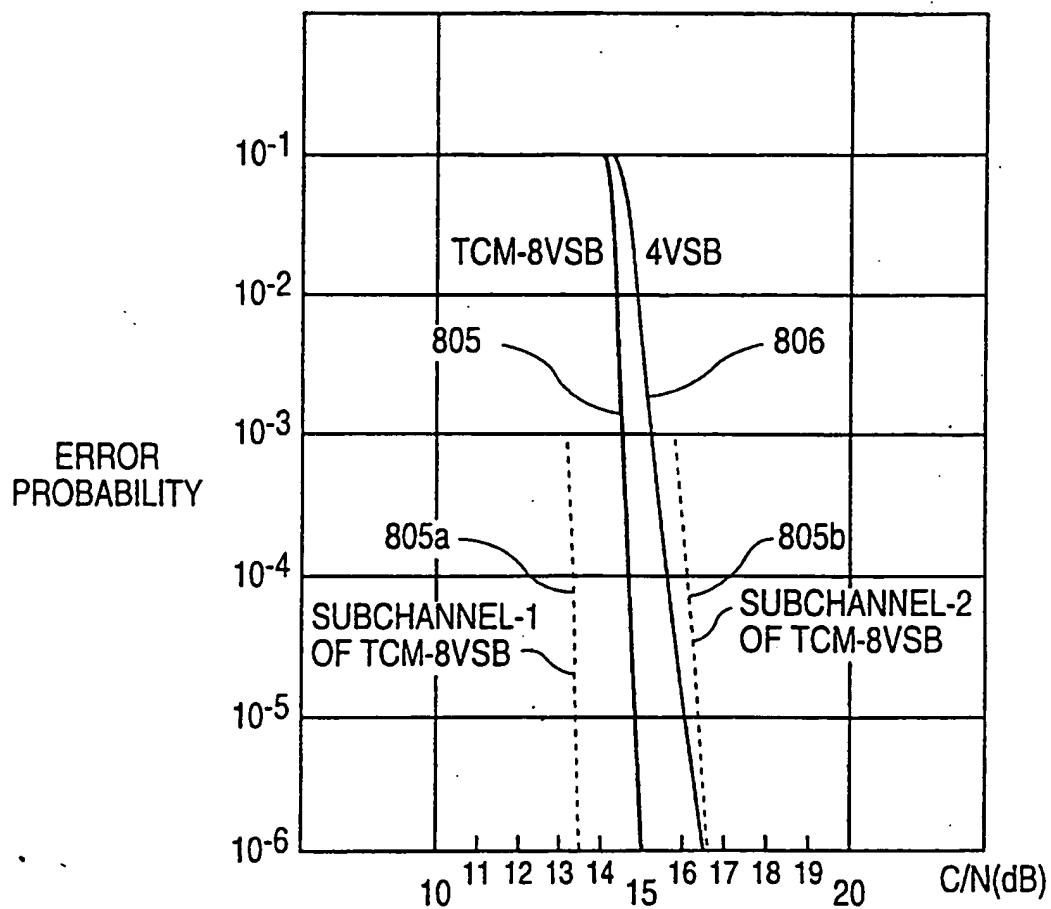


FIG. 165(a)

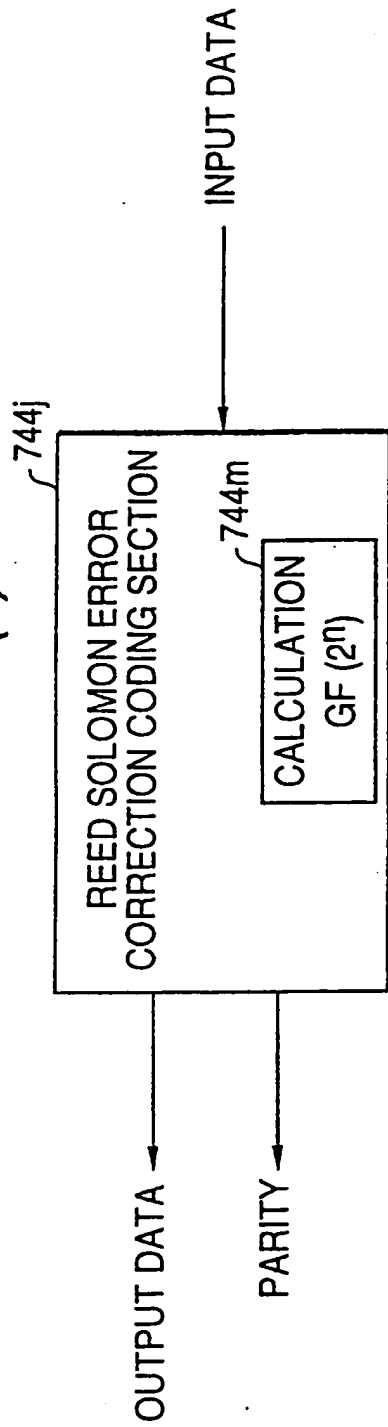


FIG. 165(b)

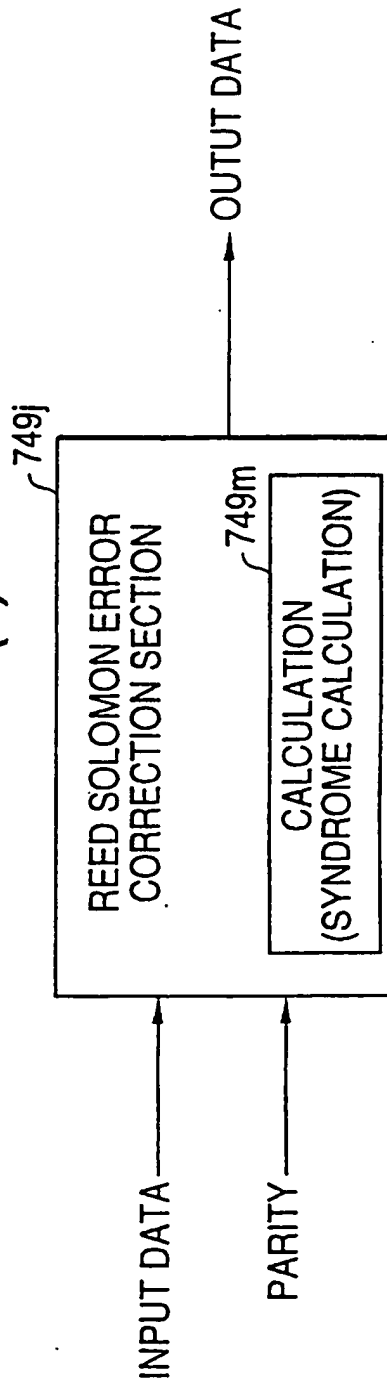


FIG. 166

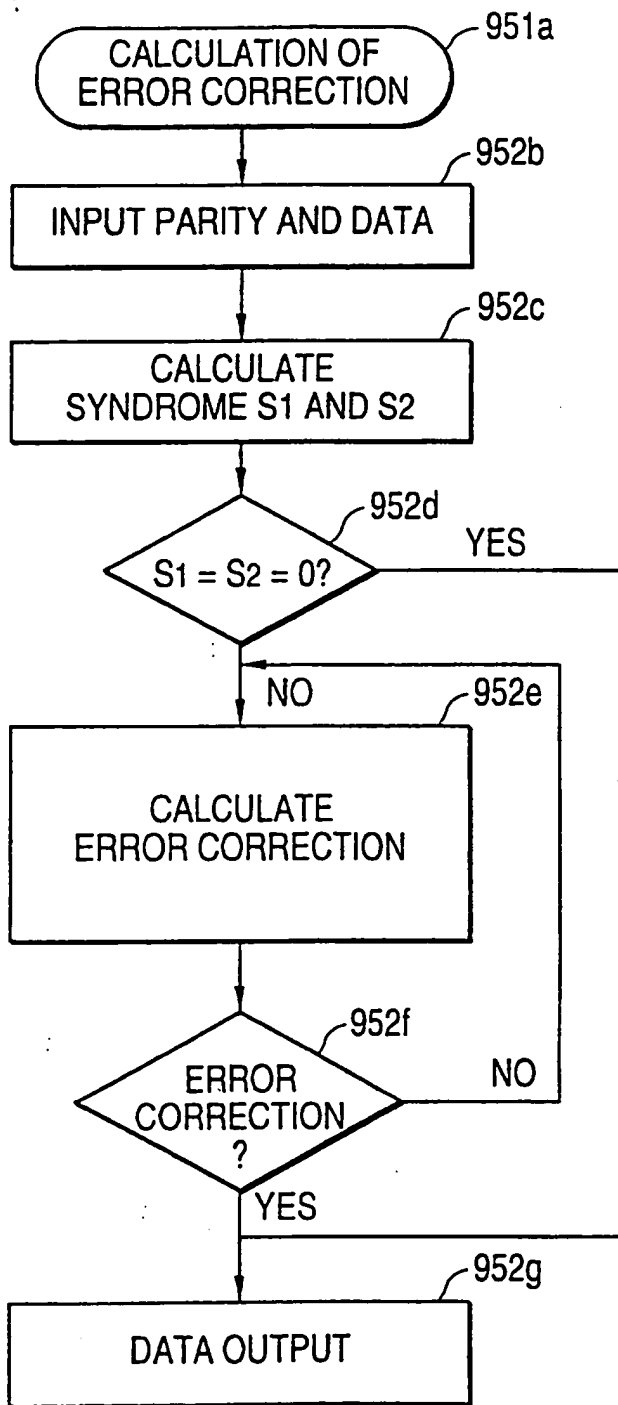


FIG. 167

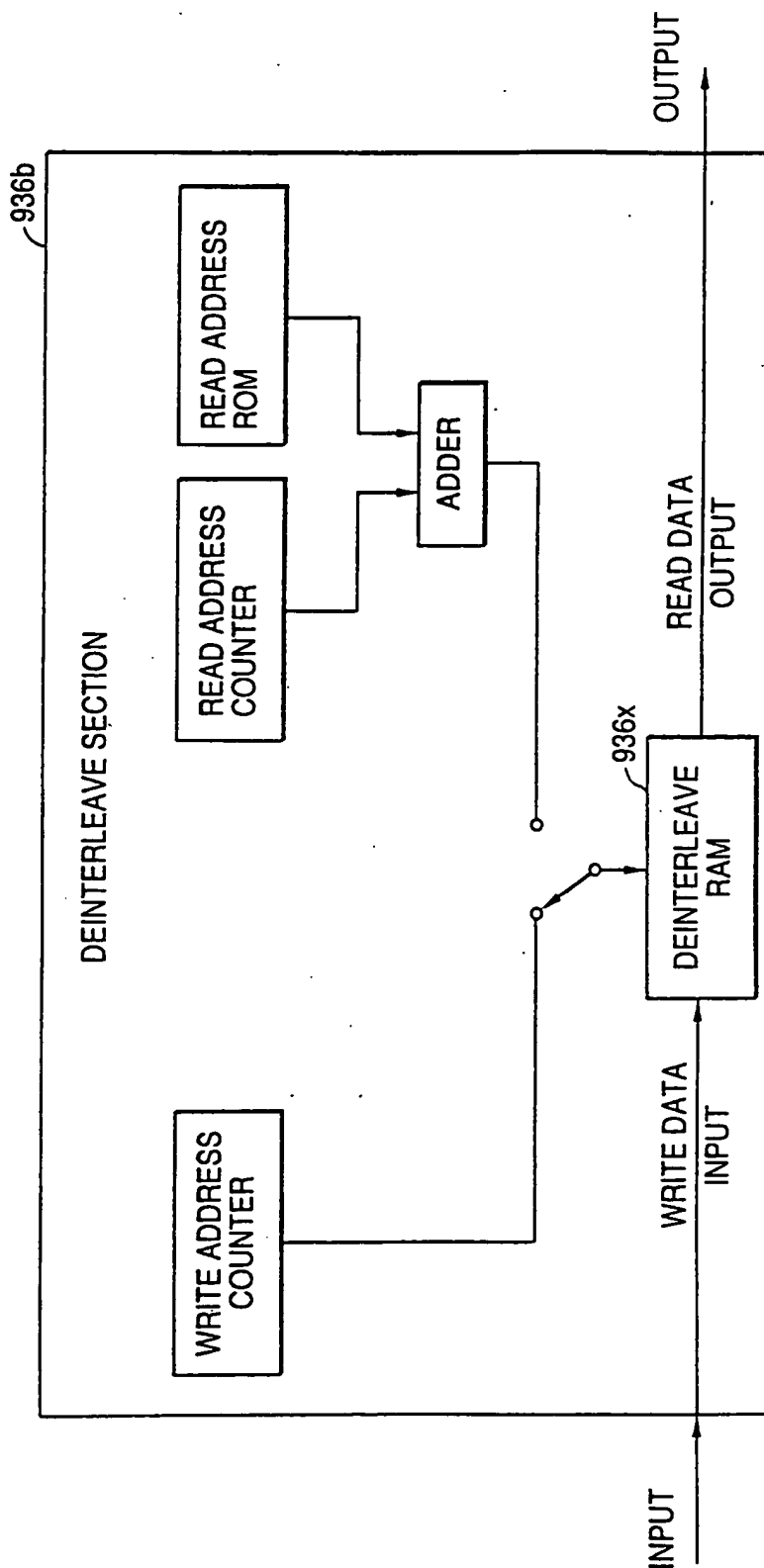


FIG. 168(a)

INTERLEAVE TABLE

1	2	3	4	5	6	7
DATA						C2 PARITY
1	A 1	A 2	A 3	A 4	A 5	A 6
2	B 1	B 2	B 3	B 4		
3	C 1					
4	D 1					
5	E 1					
6	F 1					
C1 PARITY	PARITY	PARITY	PARITY	PARITY	PARITY	PARITY

FIG. 168(b)

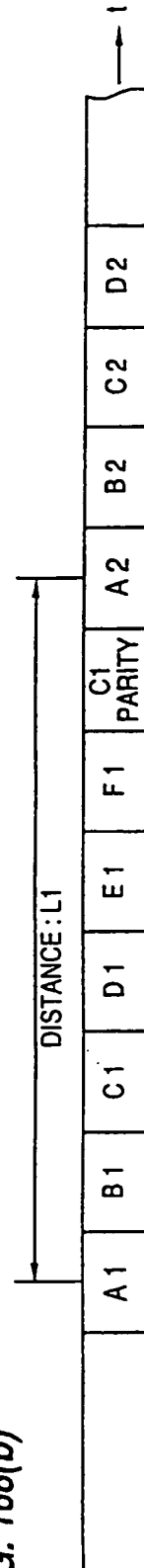


FIG. 169

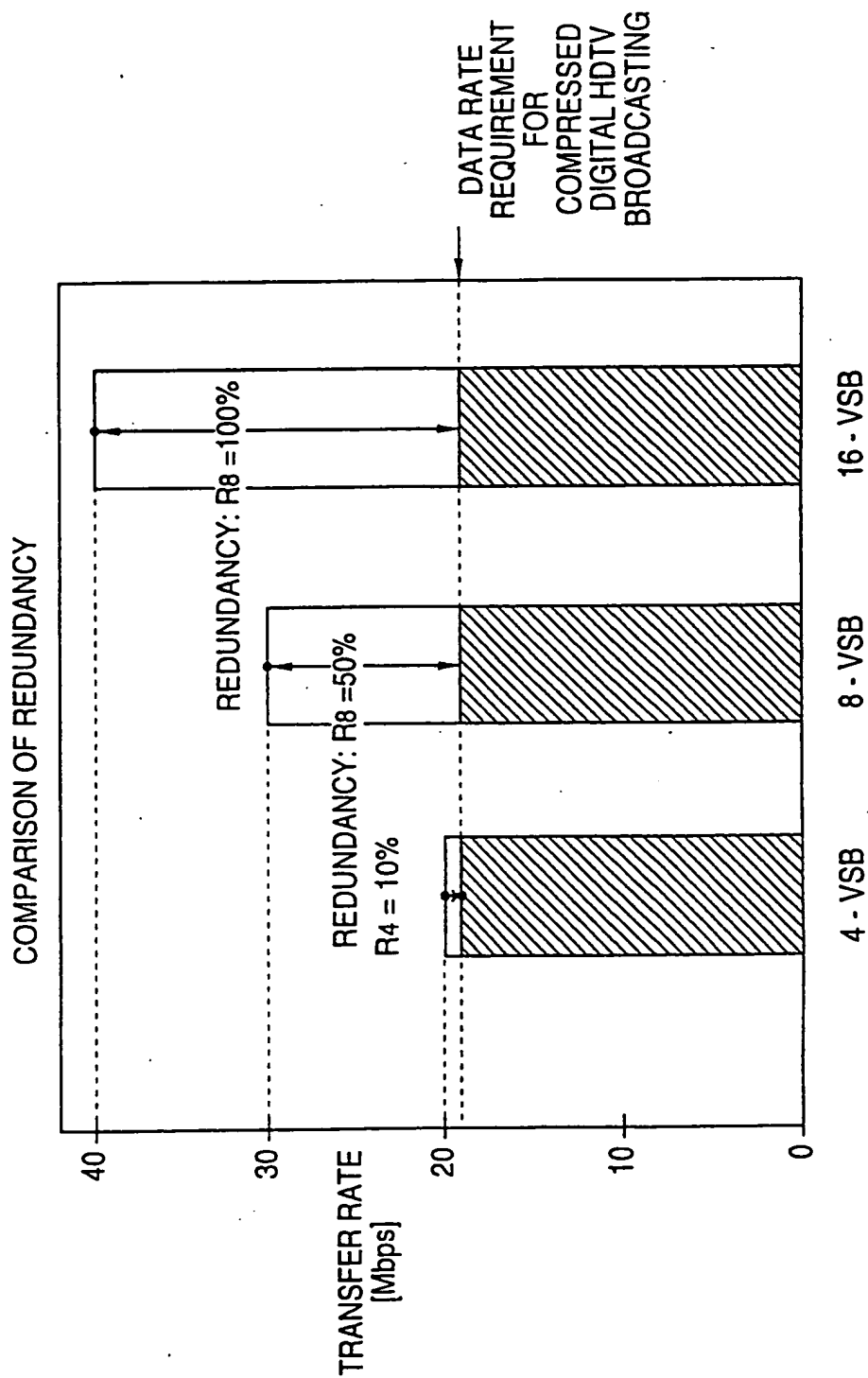


FIG. 170

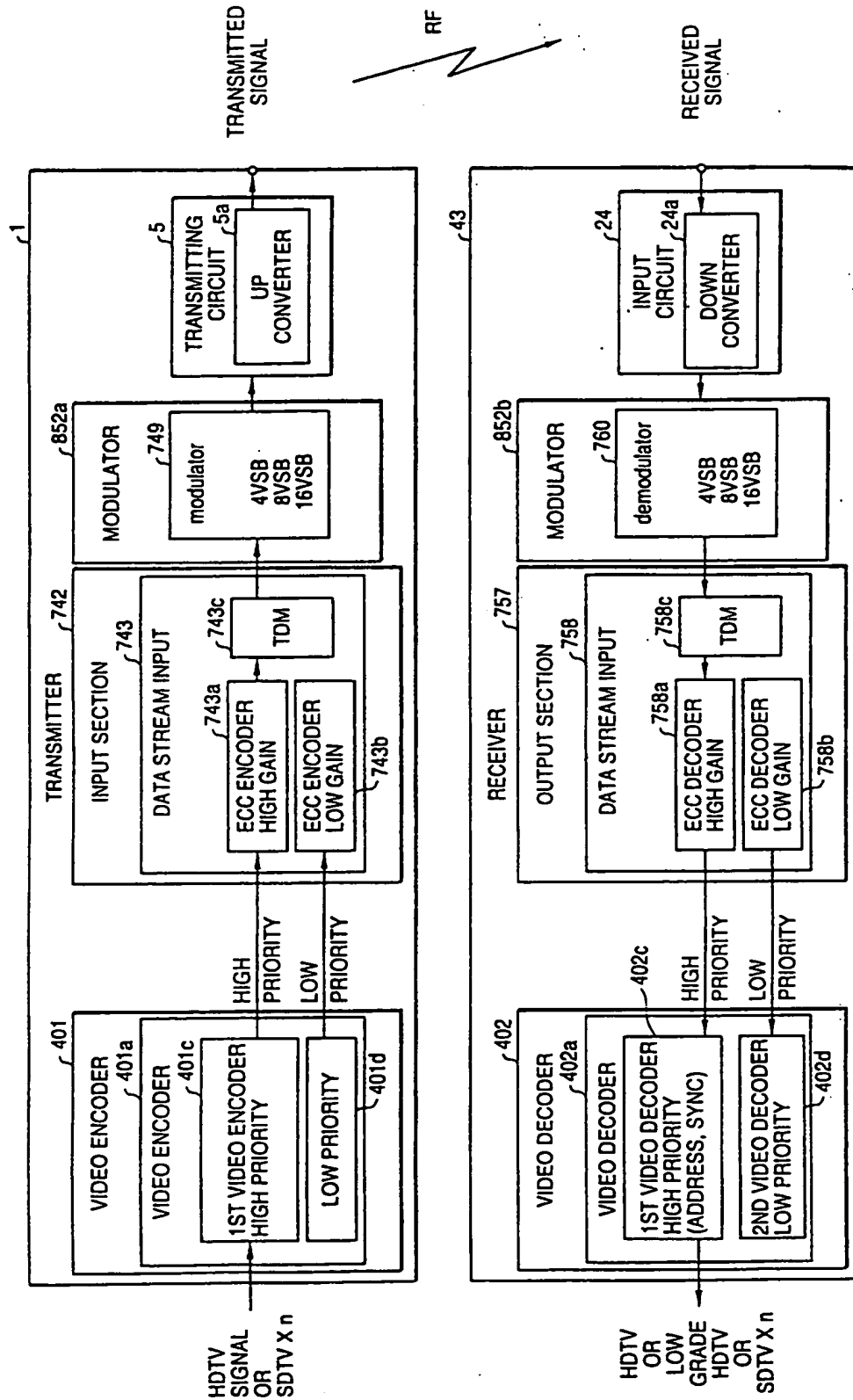


FIG. 171

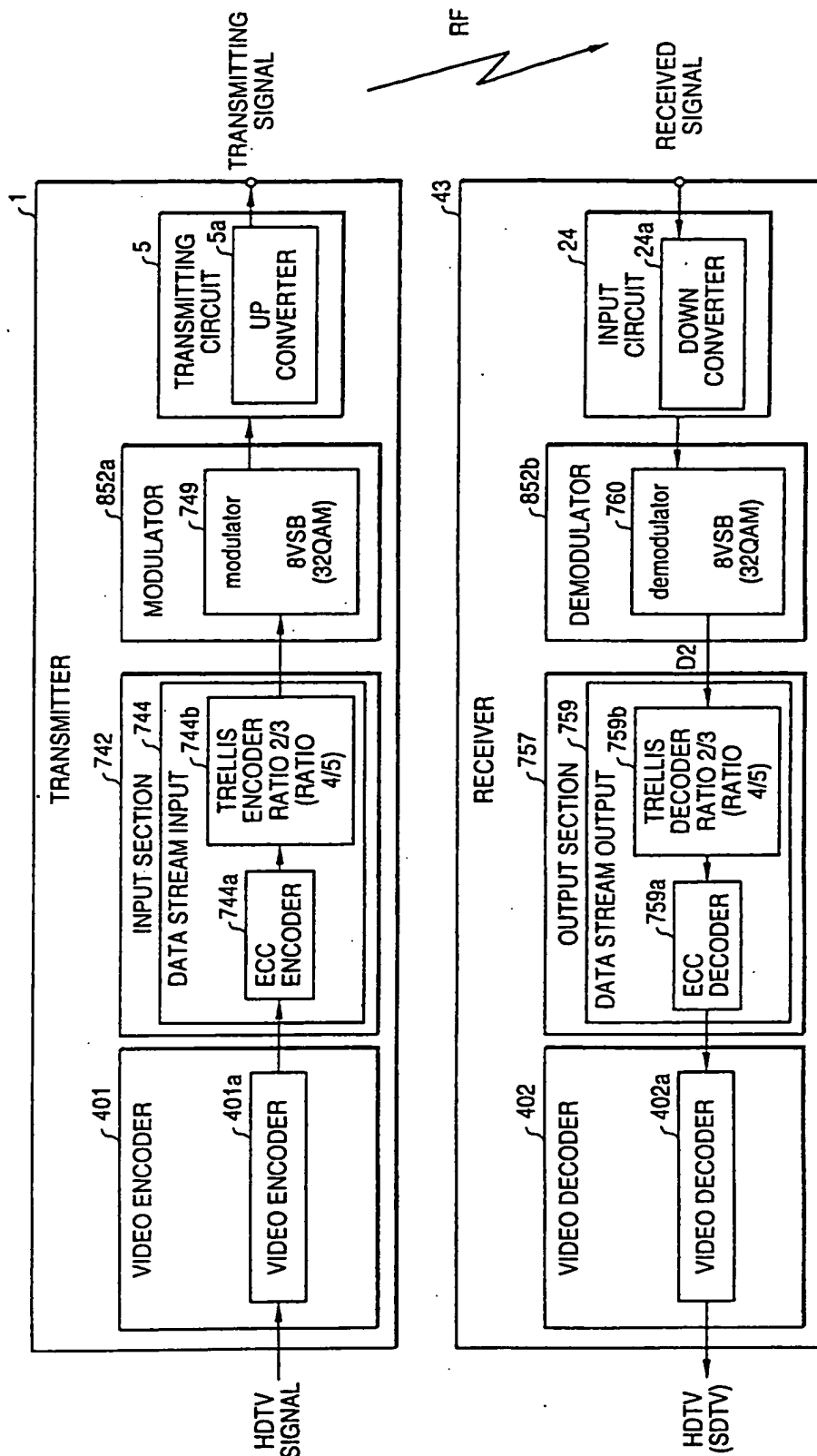


FIG. 172

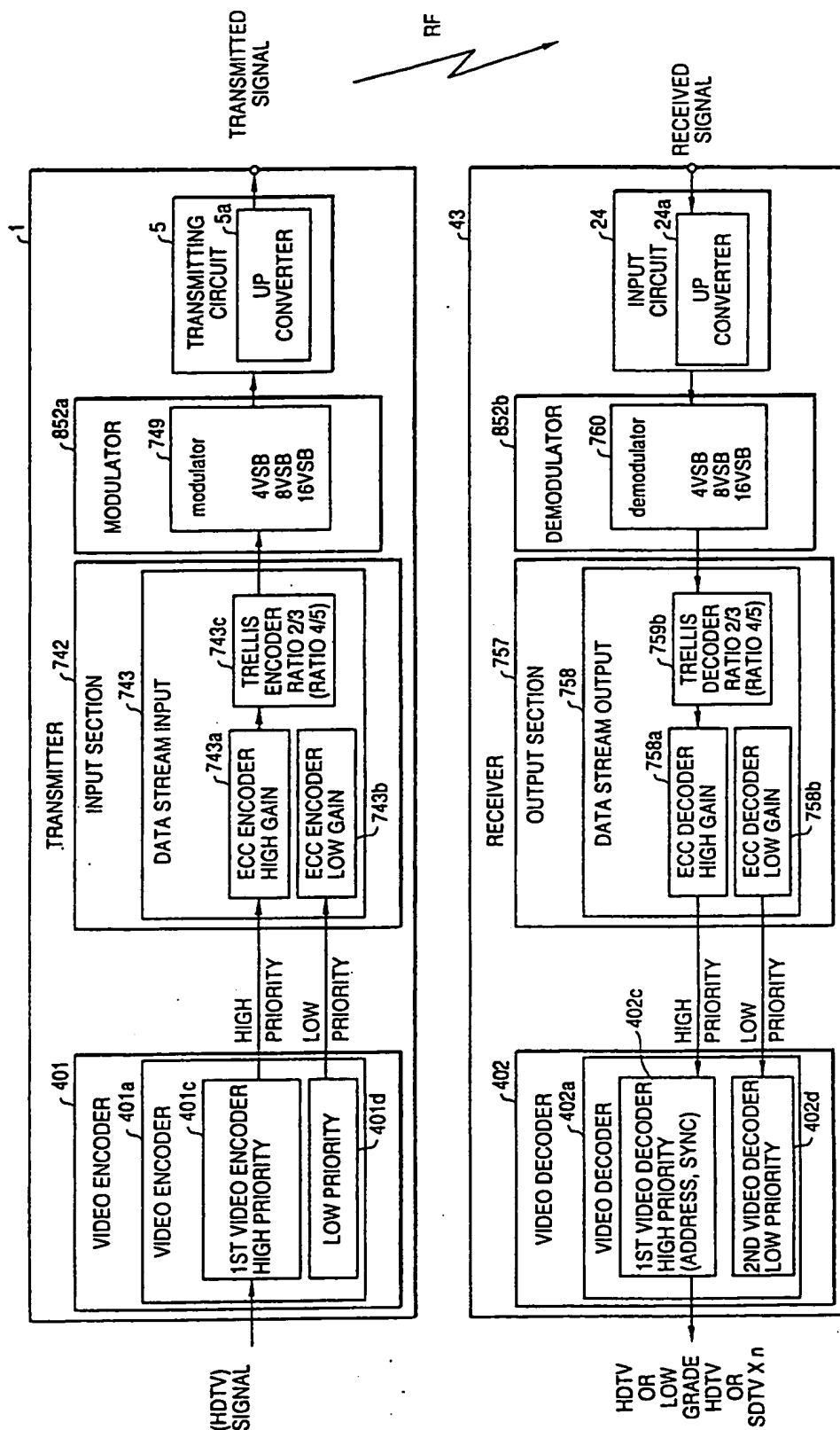


FIG. 173

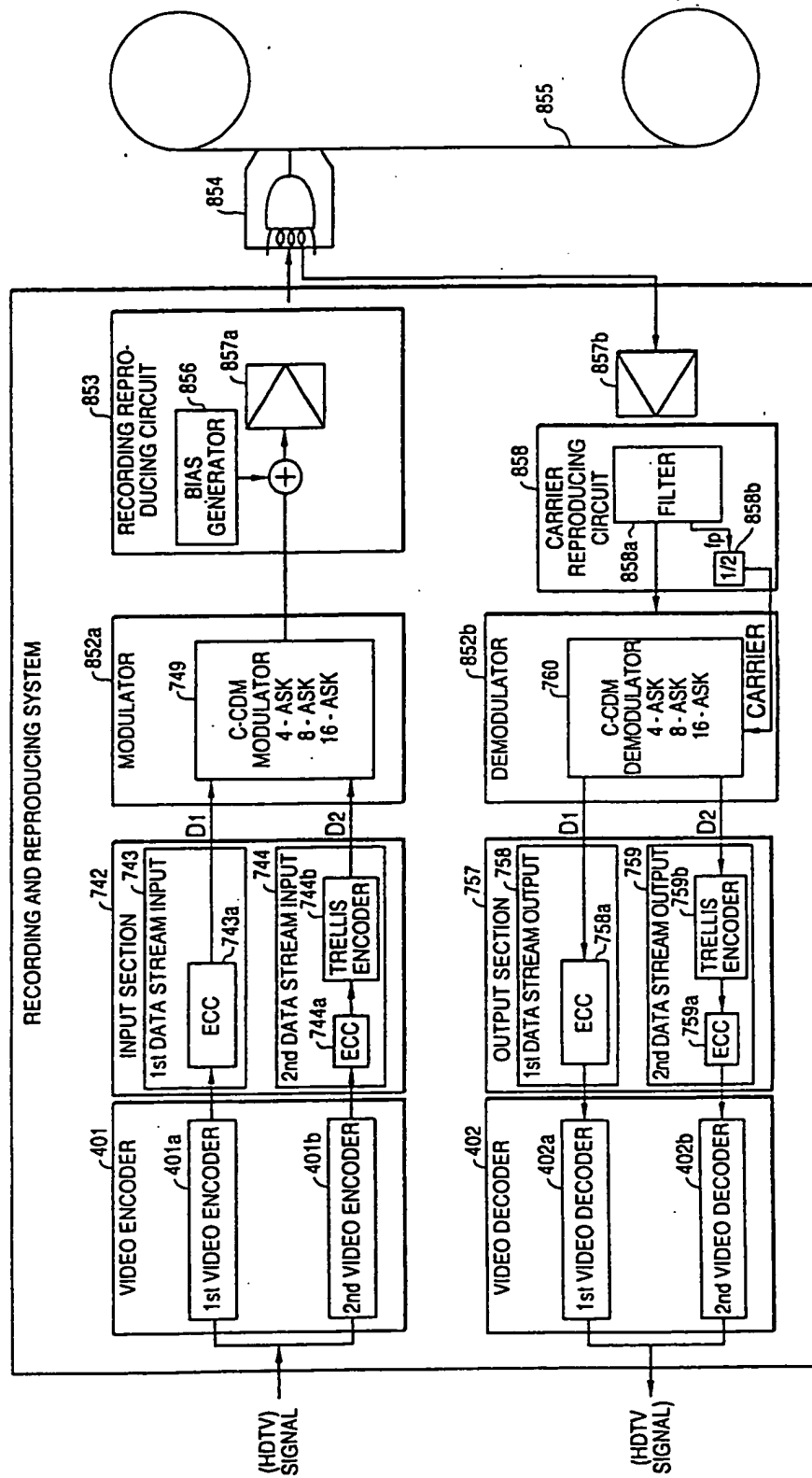


FIG. 174

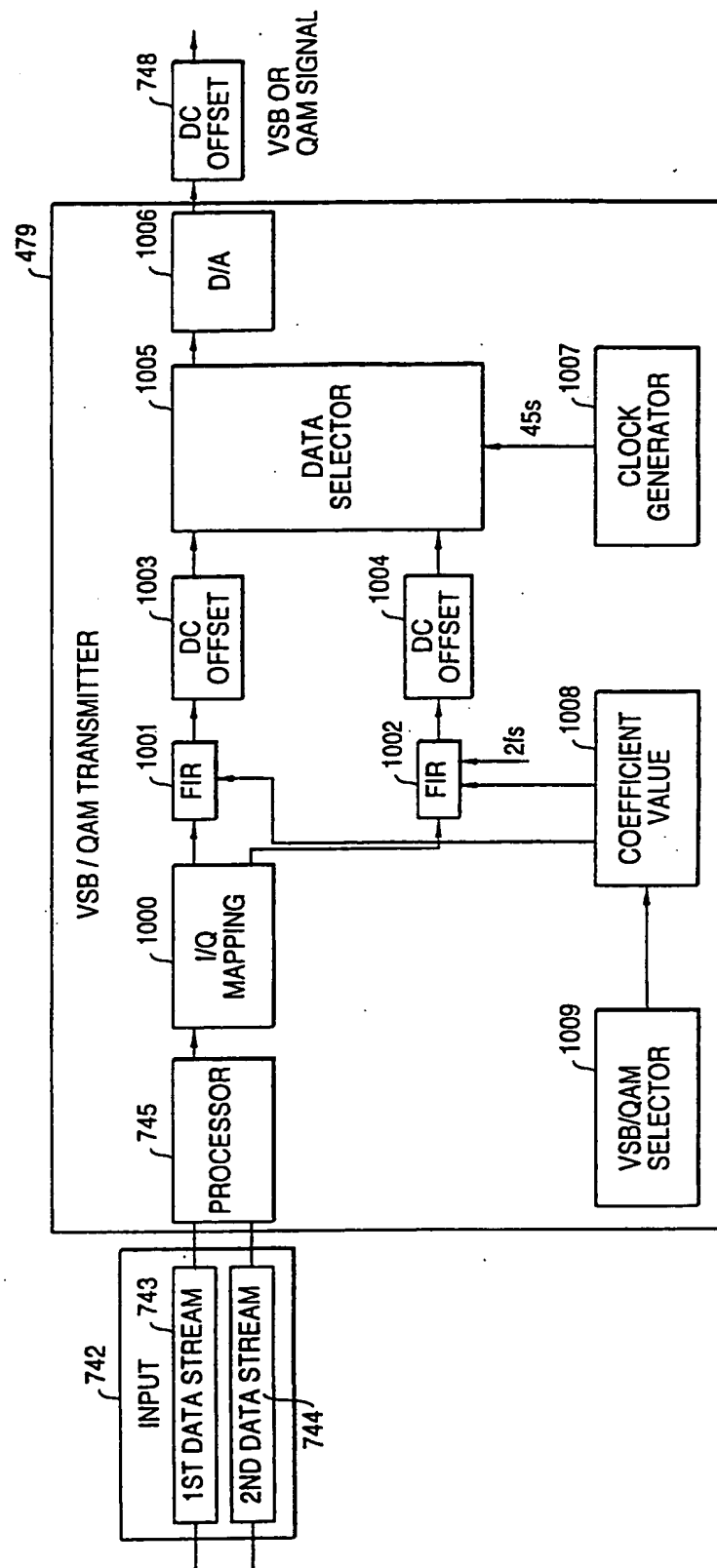


FIG. 175

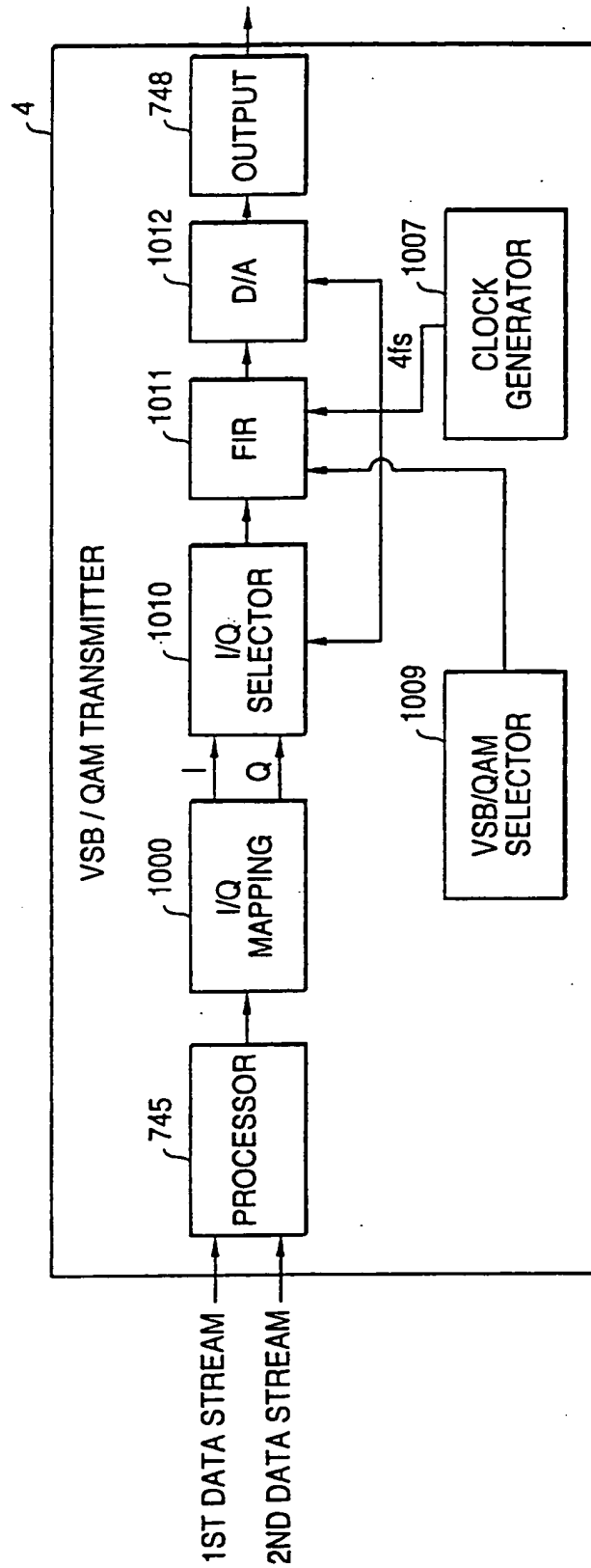


FIG. 176

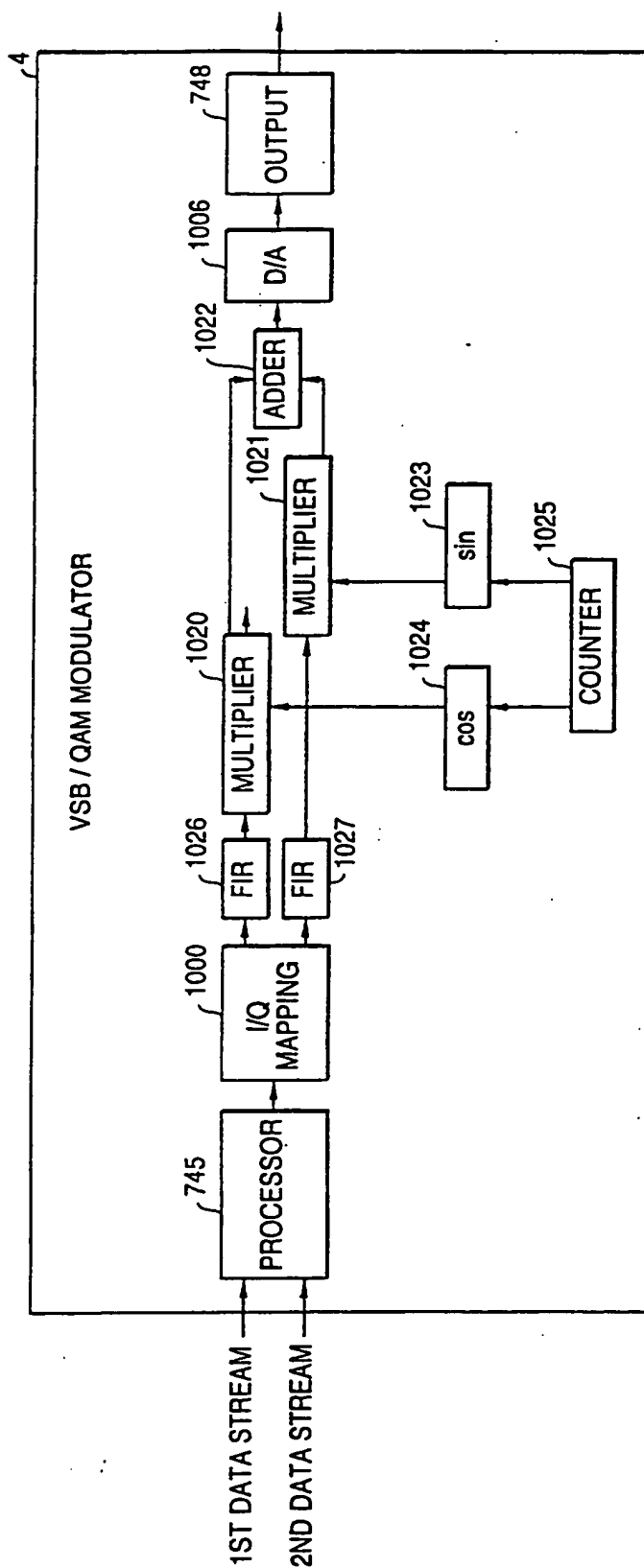


FIG. 177

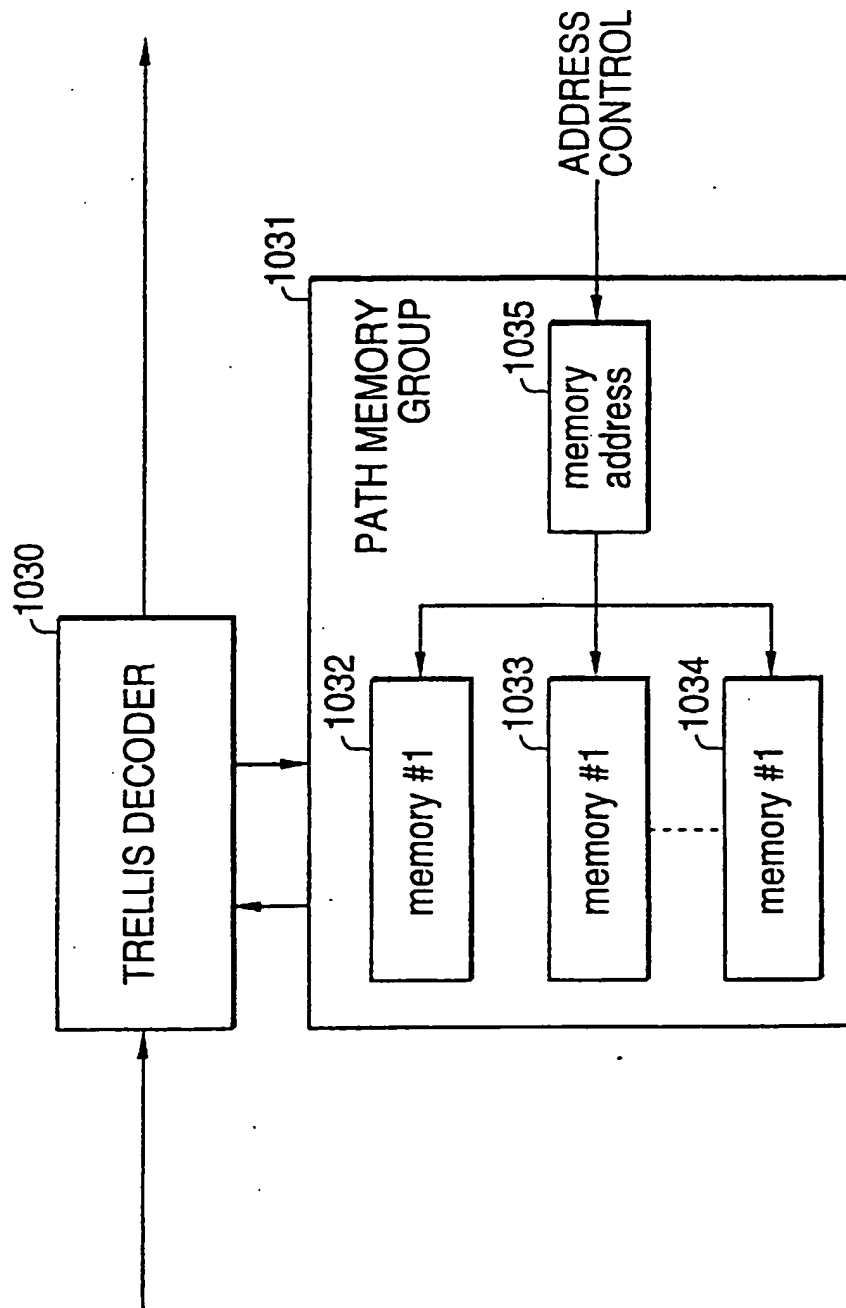


FIG. 178

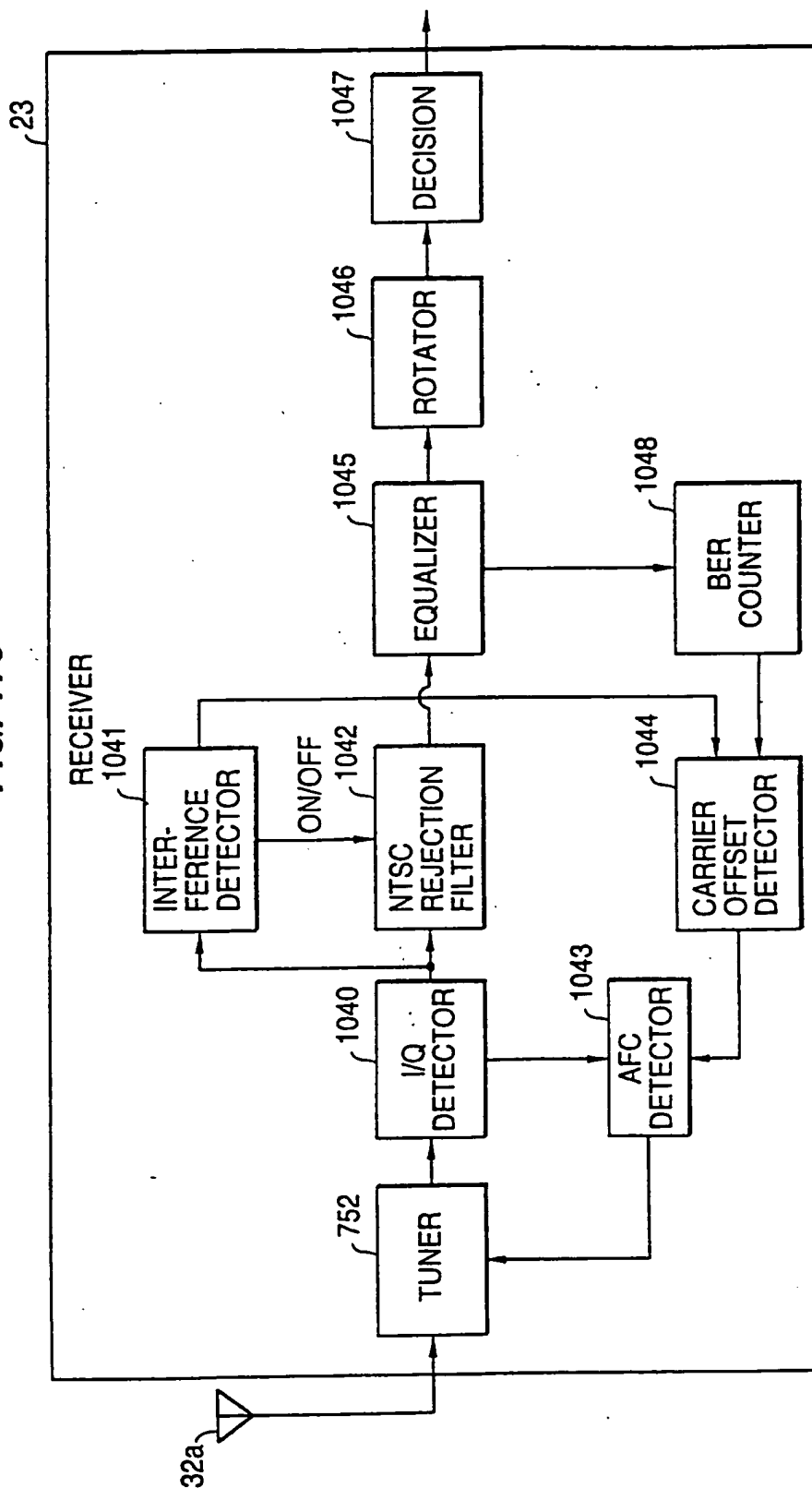
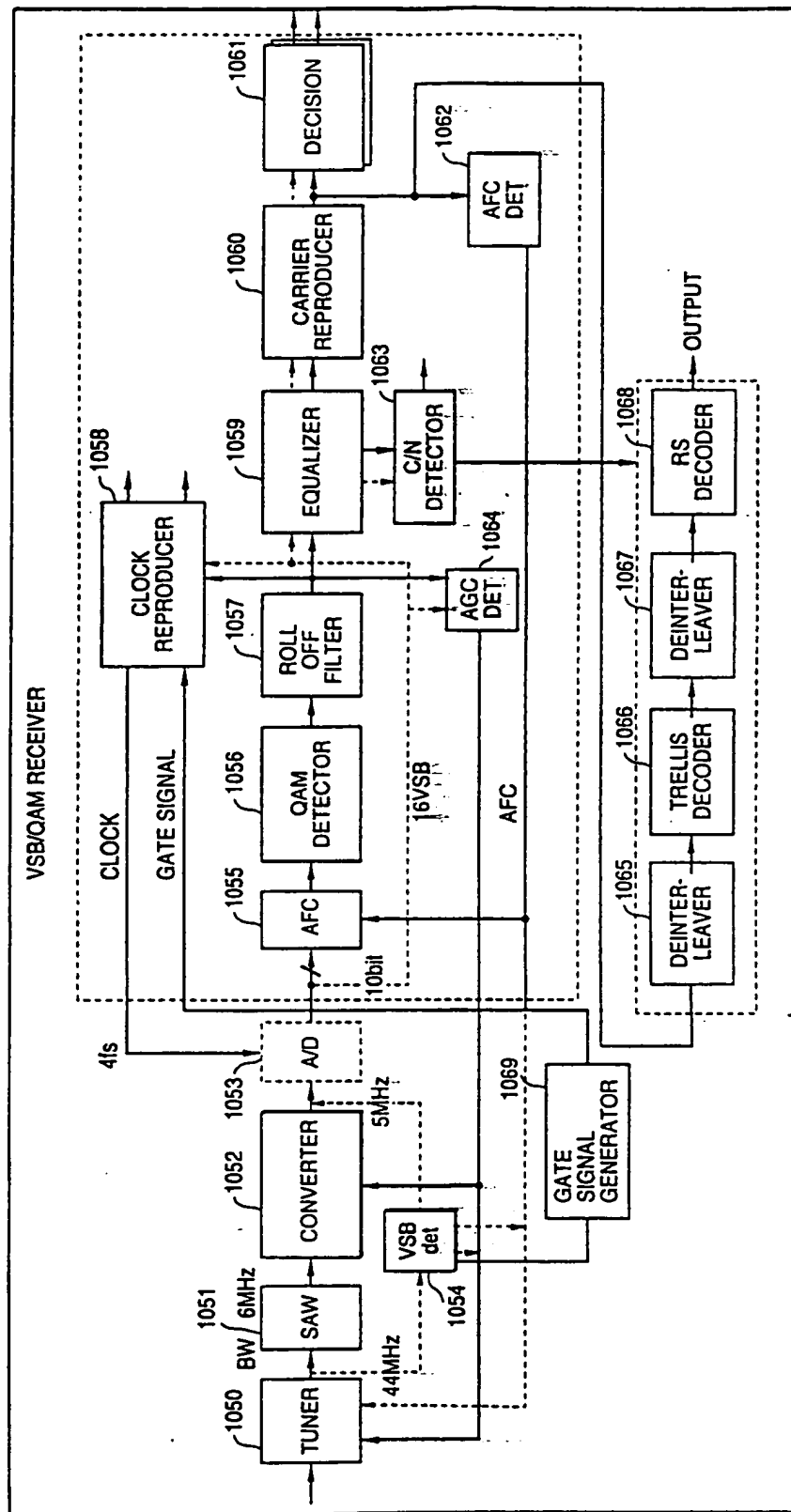


FIG. 179



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☒ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.